



Overland Traffic Consultants
952 Manhattan Beach Boulevard,
Suite #100
Manhattan Beach, CA 90266
Phone (661) 799 - 8423
E-mail: otc@overlandtraffic.com

December 14, 2020

Mr. Wes Pringle P.E.
Transportation Engineer
Metro Development Review
100 S. Main Street 9th Floor
Los Angeles, CA 90021

RE: Supplemental Traffic Assessment for Proposed Mixed - Use Residential Project
(800 S. Fairfax Avenue)

Dear Mr. Pringle,

Overland Traffic Consultants has prepared this supplemental analysis and assessment of transportation impacts for the proposed mixed – use residential project located at 800 S. Fairfax Avenue (address includes 800 – 840 S. Fairfax Avenue) in the City of Los Angeles.

Background

The Los Angeles Department of Transportation (LADOT) reviewed and approved a similar mixed – use project for this location on February 25, 2020 (DOT Case No. CEN19-48898, Attachment A). The approved project consisted of constructing 209 apartments (181 market rate units and 28 affordable units) and 2,350 square feet of restaurant uses (assumed a 1,600 square foot high-turnover restaurant and a 750 square foot fast-food restaurant). A total of 40 existing apartments in two buildings will be removed but the existing restaurant/lounge (Tom Bergin's Tavern) will remain. No significant transportation impacts were identified in the review of this project.

A modification has been proposed that adds approximately 303 square feet of restaurant floor area for a total of 2,653 square feet - all high-turnover restaurant with no fast-food restaurant floor area. Furthermore, no changes are proposed for the number and type of residential uses, access locations or parking.

The purpose of this supplemental assessment is to provide supplemental information for the February 2020 LADOT approval and document the slight increase in restaurant floor area, update the Vehicle Miles Traveled (VMT) analysis, change buildout year to 2024 with an updated cumulative project review.

Modified Project Summary

The project is located at 800 S. Fairfax Avenue in the Wilshire Community Plan area of Los Angeles (Project). The lot area is approximately 44,602 square feet in size (1.024 acres) and currently contains two apartment buildings (21 units and 19 units) and an existing 3,829 square foot restaurant/lounge (Tom Bergin's Tavern). The apartment buildings and associated carport structure will be removed but Tom Bergin's Tavern will remain. See Figure 1 for the project's location.

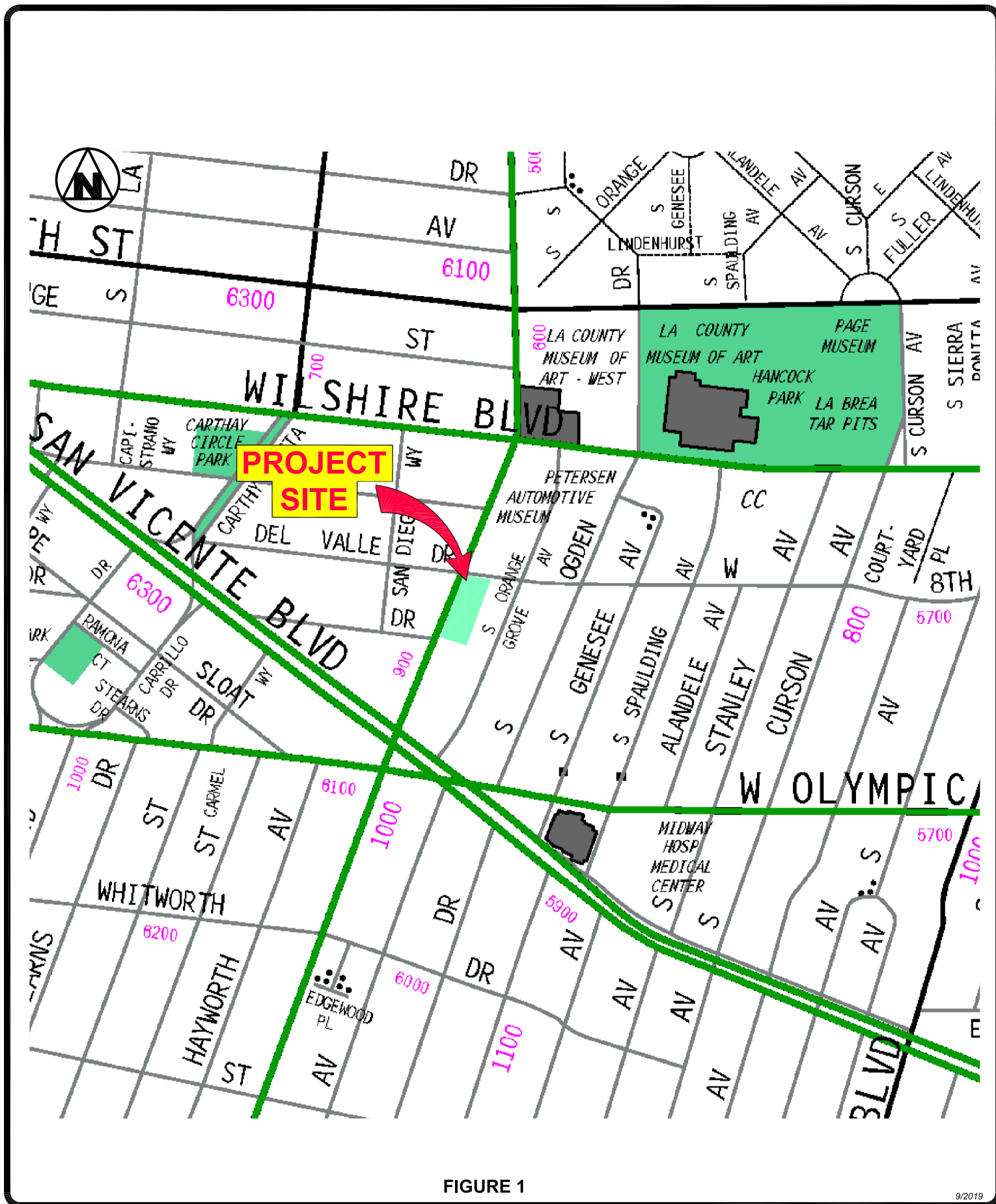
The proposed mixed – use Project consists of 181 residential apartment units, 28 affordable apartment units with 2,653 square feet of restaurant floor area.

Project Parking and Access

The Project will provide 239 parking spaces in three parking levels (40 parking spaces for the commercial use which includes 23 replacement spaces for Tom Bergin's Tavern and 199 parking spaces for the residential units). Approximately 146 bike spaces are also planned (130 long term and 16 short term spaces).

Three existing vehicular driveways on Fairfax Avenue and one on 8th Street will be removed. New vehicle access to the parking garage will be provided via one driveway on Fairfax Avenue south of 8th Street and one driveway on 8th Street east of Fairfax Avenue.

Figures 2a thru 2c illustrate the Project site plan.

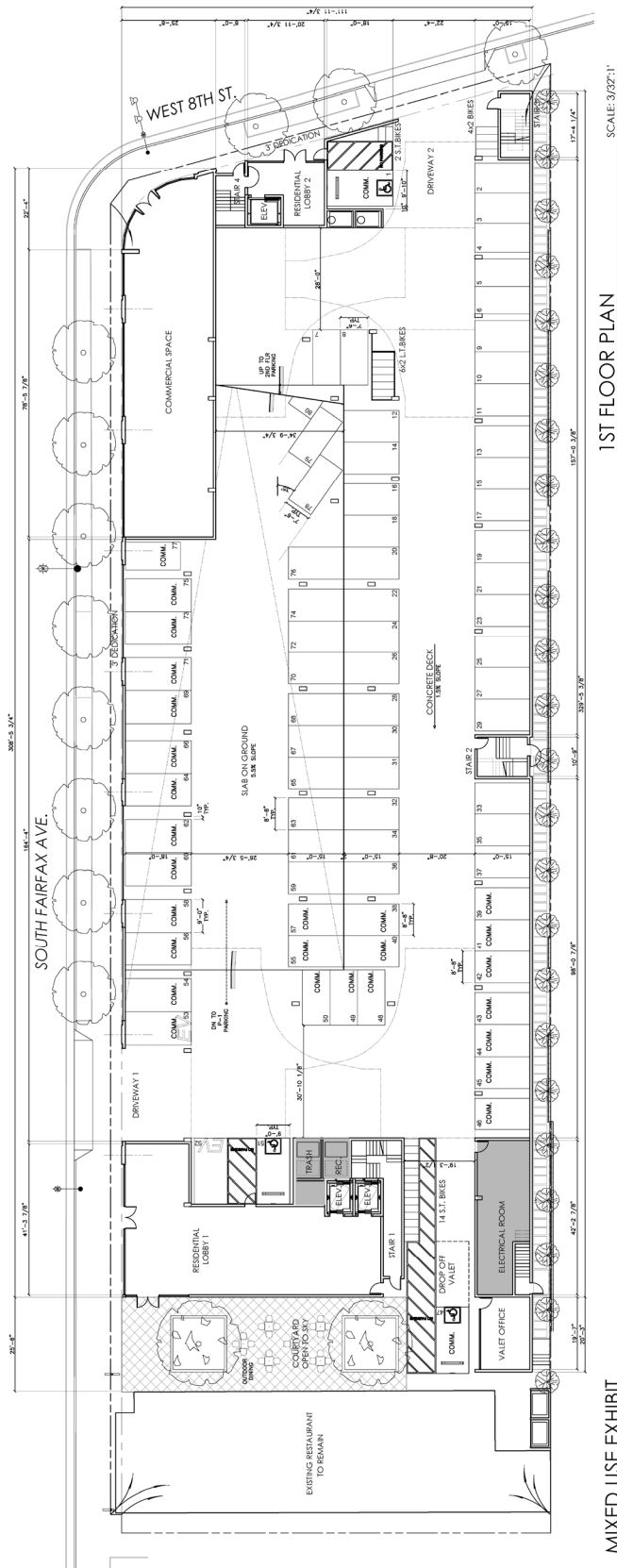


PROJECT LOCATION



Overland Traffic Consultants, Inc.

24325 Main Street #202, Santa Clarita, CA 91321
(661) 799-8423 OTC@overlandtraffic.com



MIXED USE EXHIBIT

1ST FLOOR PLAN

SCALE: 3/32"=1'

FIGURE 2a

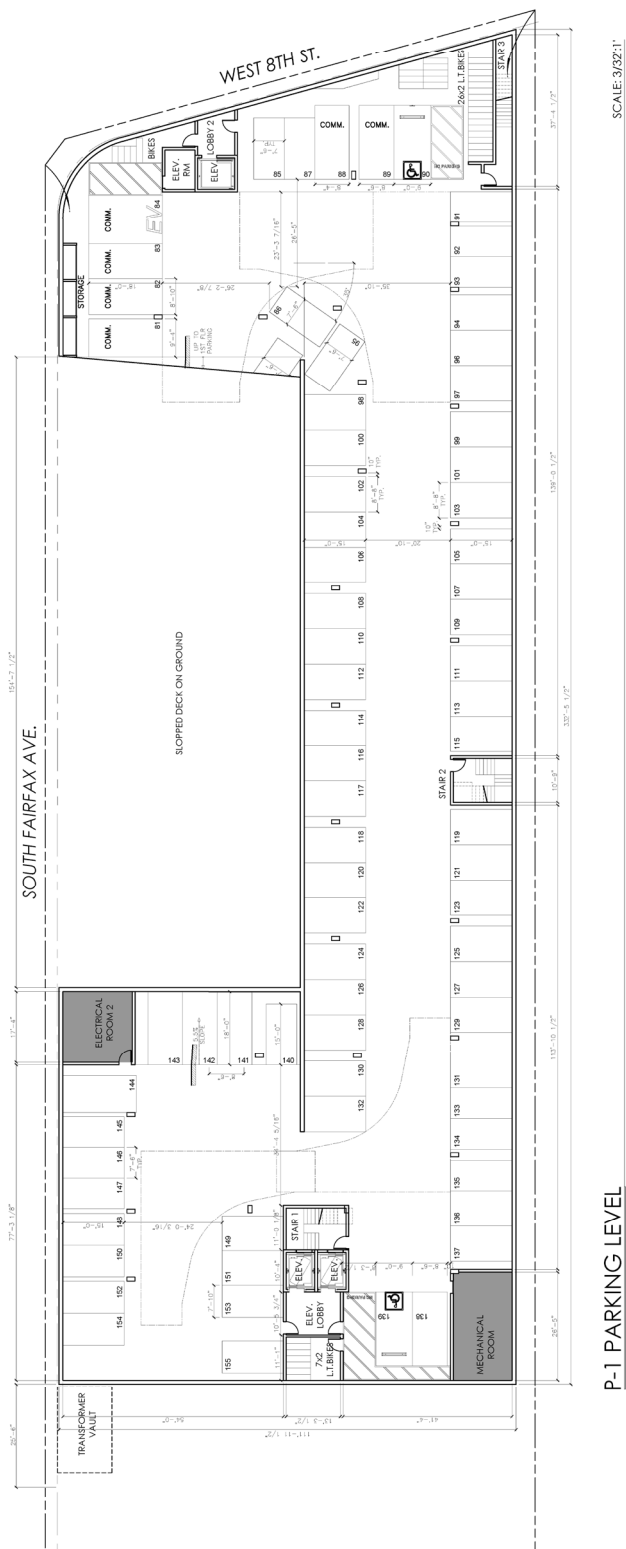
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**SITE PLAN
GROUND LEVEL**



Overland Traffic Consultants, Inc.

952 Manhattan Beach Bl. #100, Manhattan Beach, CA 90266
(661) 799 - 8423, OTC@overlandtraffic.com



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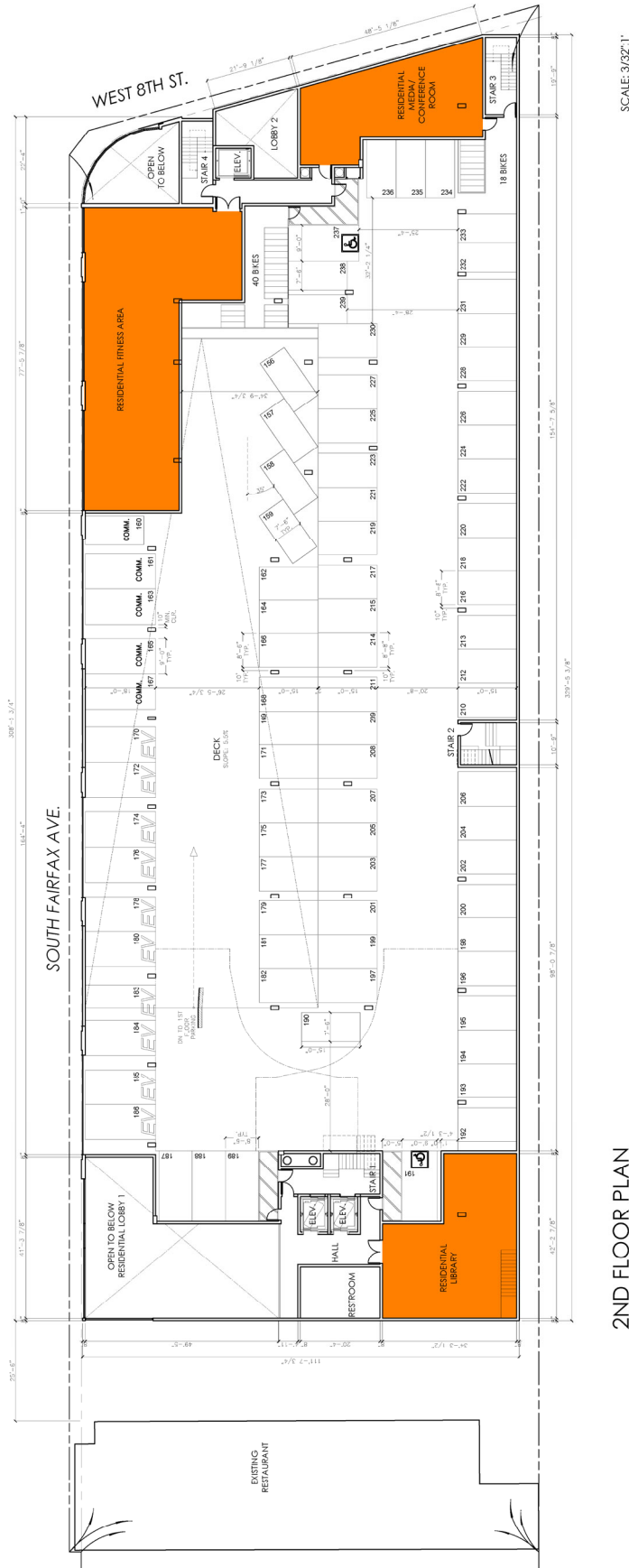


FIGURE 2c

SITE PLAN
PARKING LEVEL 2



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CEQA ANALYSIS OF TRANSPORTATION IMPACTS

The Transportation Assessment Guidelines (TAG) is the City of Los Angeles' document that establishes procedures and methods for conducting transportation analyses for land development projects pursuant to CEQA. LADOT's TAG review of the original project's transportation impact was completed in February 2020 and reported no significant transportation impacts were associated with the Project.

The TAG identifies three CEQA thresholds for identifying significant transportation impacts in accordance with SB 743 and the State's CEQA Guidelines that are applicable to the Project.

- Threshold T-1: Conflicting with Plans, Programs, Ordinances, or Policies addressing the circulation system
- Threshold T-2.1: Causing Substantial Vehicle Miles Traveled (VMT)
- Threshold T-3: Substantially Increasing Hazards Due to a Geometric Design Feature or Incompatible Use

Supplemental Review of CEQA Thresholds for Modified Project

In July 2020, LADOT updated the TAG with a new Travel Demand Forecasting (TDF) Model and vehicle miles traveled (VMT) Calculator Tool¹. This updated version of the City's TAG further refines and clarifies analysis methodologies that were introduced in the last update in August 2019.

This supplemental analysis has been prepared to reaffirm the validity of the LADOT's CEQA determination that no new significant transportation impacts are created by the modifications proposed by the Project.

¹ The mixed-use development (MXD) model was refined to use transit mode split data and surrounding demographic data from the Los Angeles travel demand model, allowing the MXD model to be more sensitive to neighborhood characteristics. Trip lengths are also obtained and averaged for TAZs within 1/8 mile of the project address (see attachment C for the VMT Calculator ver1.3 update report).

➤ Threshold T-1: Conflicting with Plans, Programs, Ordinances, or Policies addressing the circulation system

The TAG provides a list of key City plans, policies, programs, and ordinances for consistency review of Threshold T-1. A consistency check summary table is provided below in Table 1. The TAG also provides a list of questions to guide the Project's consistency review. These questions and answers relative to the Project are provided in Attachment B.

LADOT has determined that the mixed - use Project is consistent with the relevant programs, plans or ordinances identified by the TAG. The modified mixed – use Project is not significantly different than the approved project. The proposed land uses, building footprint, vehicle access and parking remain the same.

Therefore, the modified Project would not conflict with these key City planning documents, and potential impacts would be less than significant.

Cumulative Consistency Check

Pursuant to the TAG, each of the plans, programs, ordinances, and policies to assess potential conflicts with proposed projects should be reviewed to assess cumulative impacts that may result from the Project in combination with other nearby development projects.

A cumulative impact could occur if the Project with other future development projects located within ½ mile of the Project site were to cumulatively preclude the City's ability to serve transportation user needs as defined by the City's transportation policy framework. Eight nearby related projects were identified for the updated cumulative analysis included in the LOS based circulation and safety review.

No cumulative impacts have been identified with this Project together with the related projects that would preclude the City's implementation of any transportation related policies, programs, or standards.

Therefore, the Project does not have a significant transportation impact under CEQA Threshold T-1 (Conflicting with Plans, Programs, Ordinances, or Policies).

Table 1
Consistency Check with Key City Plans, Programs, Ordinances or Policies

TAG Table 2.1-1: City Documents that Establish the Regulatory Framework				
	Plan or Policy	Consistent?	Notes	Preclude City Implementation?
1.	LA Mobility Plan 2035	Yes	The Project complies with the Mobility Plan 2035 street standard for Fairfax Avenue (Avenue II) and 8 th Street (Collector). A 3 - foot dedication by the Project is required for both streets to serve long-term mobility needs identified in the Mobility Plan 2035. The Project will dedicate as required.	No
2.	Plan for Healthy LA	Yes	The Project would support Policy 5.7, Land Use Planning for Public Health and Greenhouse Gas (GHG) Emission Reduction, by reducing single-occupant vehicle trips by its proximity to high quality and high frequency transit service. The Project would be subject to both electric charging stations and pre-wiring spaces for potential future electric vehicle charging (Ord. 186485). The Project would not conflict with other policies in the Plan for Healthy LA.	No
3.	Specific Plans	Yes	The Project is in the Wilshire Community Plan area. The Project is not located in any Specific Plan overlay area.	No
4.	LAMC Section 12.21A.16 (Bicycle Parking)	Yes	The Project complies with the ratio of short- and long-term bicycle parking pursuant to LAMC Section 12.21. A.16.	No
5.	LAMC Section 12.26J (TDM Ordinance)	Yes	LAMC Section 12.26J for Transportation Demand Management and Trip Reduction Measures applies only to the construction of new non-residential floor area greater than 25,000 s.f. The Project includes approximately 2,653 square feet of commercial floor area.	No
6.	Vision Zero Action Plan	Yes	No Vision Zero projects are located near the Project site. The Project would not preclude or conflict with the implementation of future Vision Zero projects in the public right-of-way.	No
7.	Vision Zero Corridor Plans	Yes	The Project is not located on a priority intersection or corridor identified in the Vision Zero Action Plan. The Project would not preclude or conflict with the implementation of future Vision Zero projects in the public right-of-way.	No
8.	Streetscape Plans	Yes	The Project is not located in any Streetscape Plan overlay area.	No
9.	Citywide Design Guidelines	Yes		
	Guideline 1: Promote a safe, comfortable, and accessible pedestrian experience for all.	Yes	The Project will create a continuous and straight sidewalk clear of obstructions for pedestrian travel. The Project will provide adequate sidewalk width and right-of-way that accommodates pedestrian flow and activity. Pedestrian access will be provided at street level with direct access to the surrounding neighborhood and amenities.	No
	Guideline 2: Carefully incorporate vehicular access such that it does not degrade the pedestrian experience.	Yes	The Project complies with the Citywide Design Guidelines incorporating vehicle access locations that do not discourage and/or inhibit the pedestrian experience. The Project vehicular access complies with driveway location standards.	No
	Guideline 3: Design projects to actively engage with streets and public space and maintain human scale.	Yes	The building design uses attractive architectural elements that promotes neighborhood pride and reduces the perceived mass. The Project would not preclude or conflict with the implementation of future streetscape projects in the public right-of-way.	No

➤ Threshold T-2.1: Causing Substantial Vehicle Miles Traveled (VMT)

The modified Project's VMT has been calculated using the updated LADOT VMT Calculator tool (Ver 1.3v141) to re-evaluate the modified Project's VMT impacts. Results of the updated calculation show a Project daily household VMT per capita value of 4.4 with the Project's bike and vehicle TDM parking strategies. This household VMT is below the Central Area Planning Commission area (APC) threshold value of 6.0 household VMT per capita. Note that the employee VMT calculation is not applicable because the Project's restaurant is a local serving use less than 50,000 square feet in size.

The Project VMT analysis demonstrates no significant transportation impact by applying an efficiency-based impact threshold (i.e., VMT per capita). Projects that fall under the City's efficiency-based impact thresholds are already shown to align with the long-term VMT and GHG reduction goals of SCAG's RTP/SCS. A less than significant project impact is sufficient in demonstrating there is no cumulative VMT impact.

Therefore, it is concluded that implementation of the Project would not create a significant VMT impact. A copy of the VMT Calculator summary report is provided as Attachment C to this report.

This finding is consistent with the prior LADOT determination for Threshold T-2.1.

➤ Threshold T-3: Substantially Increasing Hazards Due to a Geometric Design Feature or Incompatible Use

Impacts regarding the potential increase of hazards due to a geometric design feature generally relate to the design of access points to and from the project site, and may include safety, operational, or capacity impacts. Impacts can be related to vehicle conflicts as well as to operational delays caused by vehicles slowing and/or queuing to access a project site.

The Project design does not present any hazardous geometric design features or any design features that are unusual for the area. The Project's design reduces the number of vehicular conflict points on Fairfax Avenue from 3 driveways to one driveway and maintains one driveway on 8th Street. The Fairfax Avenue driveway will be located approximately 250 feet south of 8th Street and served by a left turn median lane. The 8th Street driveway will be located approximately in the same location as the existing 8th Street driveway. The Project's access design is consistent with LADOT's driveway placement and location criteria per LADOT Manual of Policies and Procedures, Section 321, Driveway Design.

No deficiencies are apparent in the site access plans which would be considered significant. Therefore, the Project does not have a significant transportation impact under CEQA Threshold T-3 (Substantially Increasing Hazards Due to a Geometric Design Feature or Incompatible Use). The capacity and operational delays impact analysis has been updated in the following non-CEQA review.

This finding is consistent with LADOT's prior determination for Threshold T-3. LADOT's February 2020 approval included approval of the Project's site plan (page 3 of approval letter). The modified Project's site plan layout is the same as the prior project.

NON-CEQA ANALYSIS OF TRANSPORTATION IMPACTS

The City's adopted process also requires additional non-CEQA analysis and review for land development projects. The purpose of this review is to evaluate how projects affect vehicular access, circulation, and safety.

Below is the updated non-CEQA evaluation with the expanded buildout year to 2024, updated cumulative project list and changes to the Project's commercial component (+ 303 square feet and removal of the fast-food restaurant).

➤ Pedestrian, Bicycle, and Transit Access Assessment

The pedestrian, bicycle and transit facilities assessments are intended to determine a project's potential effect on pedestrian, bicycle, and transit facilities in the vicinity of the proposed project. The deficiencies could be physical (through removal, modification, or degradation of facilities) or demand-based (by adding pedestrian or bicycle demand to inadequate facilities).

1. Removal or Degradation of Facilities

The project will not remove or degrade any pedestrian, bicycle, and transit facilities in the vicinity of the proposed Project. In fact, any damaged or off-grade sidewalk, curb and gutter along the property frontage will be repaired under Section 12.37 of the Los Angeles Municipal Code (LAMC).

2. Project Intensification of Use

The Project is located on Fairfax Avenue and 8th Street. Fairfax Avenue is included in the Transit Enhanced Network, Bike Enhanced and Pedestrian Enhanced District. Eight Street is part of the Neighborhood Enhanced Network. Per the VMT calculator, the project would have a residential population of approximately 496 person and 11 employees. As discussed below, this level of intensification would not require any additional transit, bicycle, or pedestrian facilities to be constructed.

a) Transit Enhanced Network

Fairfax Avenue is designated as a Moderate Transit Enhanced street - typically include bus stop enhancements and increased service, with transit vehicles continuing to operate in mixed traffic. Multiple transit lines (local, Rapid and Rail) are available near – by to serve the future Project. The Project site is less than 750 feet from the intersection of Wilshire Boulevard and Fairfax Avenue, a major transit stop, which is an intersection of two or more bus routes with a service interval of 15 minutes or less during the morning and afternoon peak commute periods

The nearest transit stop is Metro Line 217 at the corner of 8th Street and Fairfax Avenue. Other nearby transit routes include: two Metro lines (Routes 20 and 217), Rapid lines (Routes 720 and 780) and LADOT DASH Fairfax line.

Under construction is the Metro Purple Line Transit project which will provide a station on the southside of Wilshire Boulevard between Orange Avenue and Ogden Drive less than one-quarter mile away.

The proposed mixed-use development's proximity to transit minimizes automobile trips and to and from adjacent commercial and residential neighborhoods, thereby maximizing public infrastructure.

b) Bike Enhanced Network

No bike facilities are currently located along this segment of Fairfax Avenue, but Fairfax Avenue is identified as a potential future Tier 3 bike lane facility. A bicycle lane is typically provided on street with a designated lane stripped on the street for the exclusive use of the cyclist. The bicycle lanes are occasionally curbside, outside the parking lane, or along a right turn lane at intersections.

Tier 3 bicycle lanes on arterial roads like Fairfax Avenue with a striped separation are differentiated only by their potential implementation phasing - the difference between Tier 2 and Tier 3 implies probability that some lanes are not expected to be implemented by 2035. The Project will not conflict with the implementation of Tier 3 bike lanes on Fairfax Avenue.

c) Pedestrian Enhanced District

Fairfax Avenue is identified in the pedestrian enhanced district maps with the goal of providing a more attractive environment to promote walking for shorter trips. Pedestrian facilities such as the adjacent sidewalk on Fairfax Avenue will be widened 3 feet.

New parkway trees, expanded sidewalks, a new courtyard adjacent to Tom Bergin's restaurant, reduced driveway conflicts and ground level commercial are all Project features that will enhance the pedestrian experience. These pedestrian design features, and street trees encourages people to take trips on foot instead of by car. This also helps to reduce the volume of cars on the road and emissions, increase economic vitality, and make the City feel like a more vibrant place.

d) Neighborhood Enhanced Network

8th Street is included in the Neighborhood Enhanced Network which is comprised of streets intended to benefit from pedestrian and bicycle related safety enhancements for more localized travel of slower means of travel while preserving the connectivity of local streets to other enhanced networks. These enhancements encourage lower vehicle speeds providing added safety for pedestrians and bicyclists. The new street trees will be installed and the sidewalk adjacent to the Project on 8th Street will be widened 3 feet to enhance the neighborhood street.

3. High Injury Network

Vision Zero Los Angeles identified a strategic plan to reduce traffic deaths to zero by focusing on engineering, enforcement, education, and evaluation. The priority identified in the report is safety with a goal to make the streets of the City of Los Angeles the safest in the nation. As part of an effort to achieve this goal, LADOT identified a High Injury Network (HIN) of city streets. The HIN identifies streets with a high number of traffic - related severe injuries and deaths across all modes of travel with emphasis on those involving pedestrians and cyclists.

These segments of Fairfax Avenue and 8th Street are not part of the High Injury Network.

➤ Project Access Safety and Circulation Evaluation

Project access and circulation is evaluated for safety, operational, and capacity constraints using vehicle level of service to identify circulation and access deficiencies that may require specific operational improvements.

The delay-based analysis has been updated to evaluate if the modified Project would contribute to circulation and access deficiencies that require specific operational improvements. This updated analysis uses the same assumptions and methodology as the prior February 2020 study.

Consistent with the prior finding, the results of this updated analysis show that the modified Project will not create any significant circulation and access deficiencies. Definitions of the LOS grades in terms of vehicle delay are shown in Table 2.

Table 2
Level of Service Definitions

LOS	HCM (delay in seconds)	Operating Conditions
A	Less than 10	No loaded cycles and few are even close. No approach phase is fully utilized with no delay.
B	>10 to 20	A stable flow of traffic.
C	>20 to 35	Stable operation continues. Loading is intermittent. Occasionally drivers may have to wait more on red signal and backups may develop behind turning vehicles.
D	>35-55	Approaching instability. Delays may be lengthy during short time periods within the peak hour. Vehicles may be required to wait through more than one signal cycle.
E	>55 to 80	At or near capacity with possible long queues for left-turning vehicles. Full utilization of every signal cycle is seldom attained.
F	> 80	Gridlock conditions with stoppages of long duration.

The updated circulation deficiency evaluation has calculated the modified Project's traffic effect by adding the project traffic volumes to the existing traffic and future cumulative traffic volume with updated cumulative projects and 2024 study year. Future year traffic estimates include an annual growth rate of 1 % and related project traffic volume. Related project descriptions, project location and estimated 2024 traffic volume is provided in Attachment D. Intersections studied are listed below:

1. Fairfax Avenue and Wilshire Boulevard.
2. Fairfax Avenue and 8th Street / Del Valle Drive.
3. Fairfax Avenue and San Vicente Boulevard.
4. Fairfax Avenue and Olympic Boulevard; and
5. Olympic Boulevard and San Vicente Boulevard.

Modified Project Traffic Generation

The modified project's traffic generation has been updated to include the land use modifications using the same ITE 10th Edition traffic rates as the February 2020 approval.

Table 3A
Modified Project Traffic Generation

ITE			AM Peak Hour			PM Peak Hour		
<u>Code</u>	<u>Description</u>	<u>Size</u>	<u>In</u>	<u>Out</u>	<u>Total</u>	<u>In</u>	<u>Out</u>	<u>Total</u>
<u>Proposed Project</u>								
221	Apartments mid-rise (per unit)	181 units	17	48	65	49	31	80
	Transit/Walk	15%	(3)	(7)	(10)	(7)	(5)	(12)
932	Restaurant (per 1,000 s.f.)	2,653 sf	14	12	26	16	10	26
	Transit/Walk	15%	(2)	(2)	(4)	(2)	(1)	(3)
	Pass By	20%	(2)	(2)	(4)	(3)	(2)	(5)
LADOT	Affordable Apartments (per unit)	28 units	5	9	14	5	5	10
	Street Traffic		29	58	87	58	38	96
	Driveway Traffic		31	60	91	61	40	101
<u>Existing</u>								
220	Apartments	40 units	4	14	18	13	9	22
	Net Street Traffic		25	44	69	45	29	74
	Net Driveway Traffic		27	46	73	48	31	79

Below is Table 3B showing that the modified project reduces peak hour trips by 1 trip in the morning and 2 fewer afternoon peak hour trips.

Table 3B
Traffic Generation Comparison

Approved vs Modified Project Trip Generation Estimates						
Use	Size		AM Peak Hour Trips		PM Peak Hour Trips	
	Approved	Modified	Approved	Modified	Approved	Modified
Apartments	181 units	No Change	55	55	68	68
Affordable	28 units	No Change	14	14	10	10
Restaurant	1,600 s.f.	2,653 s.f.	11	18	11	18
Fast Food	750 s.f.	0	8	0	9	0
<u>Existing</u>	<u>40 units</u>	<u>No Change</u>	<u>18</u>	<u>18</u>	<u>22</u>	<u>22</u>
NET PROJECT TRIPS			70	69	76	74
Approved Project - Modified Project Trips			Less 1 AM Trip		Less 2 PM trips	

Project Trip Distribution

No changes have been made to the project traffic distribution or assignment. Figures 3 & 4 illustrate the 2020 existing traffic volume (traffic counts collected in May 2019 were expanded by 1.5 % to reflect 2020 conditions) and project traffic and assignment, respectively.

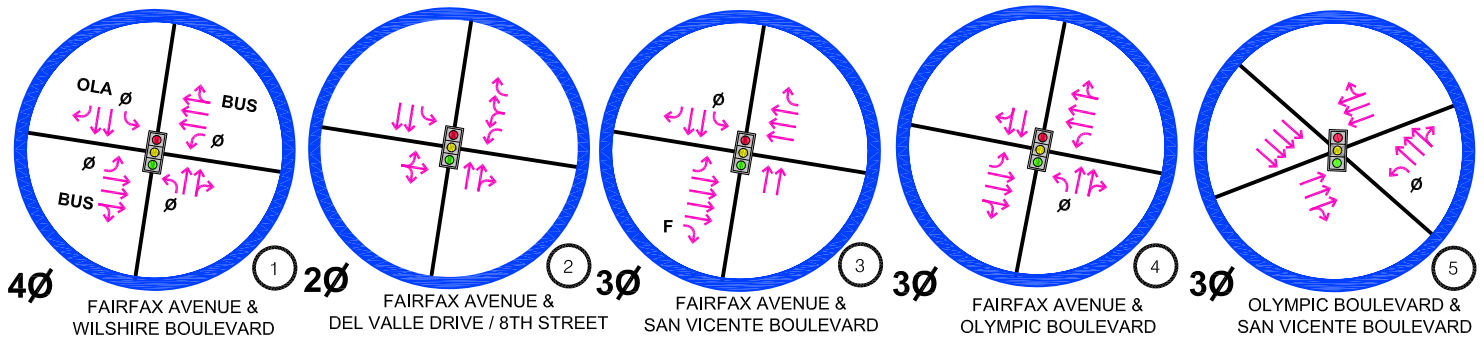
Analysis of Future Driveway Traffic Conditions

Future traffic volumes have been developed to analyze future traffic conditions after completion of the project. Traffic conditions at the proposed driveways on Fairfax Avenue and at 8th Street have been evaluated for future cumulative conditions as shown in the Table 4 below. As shown, the proposed driveways are expected to operate at LOS C or better.

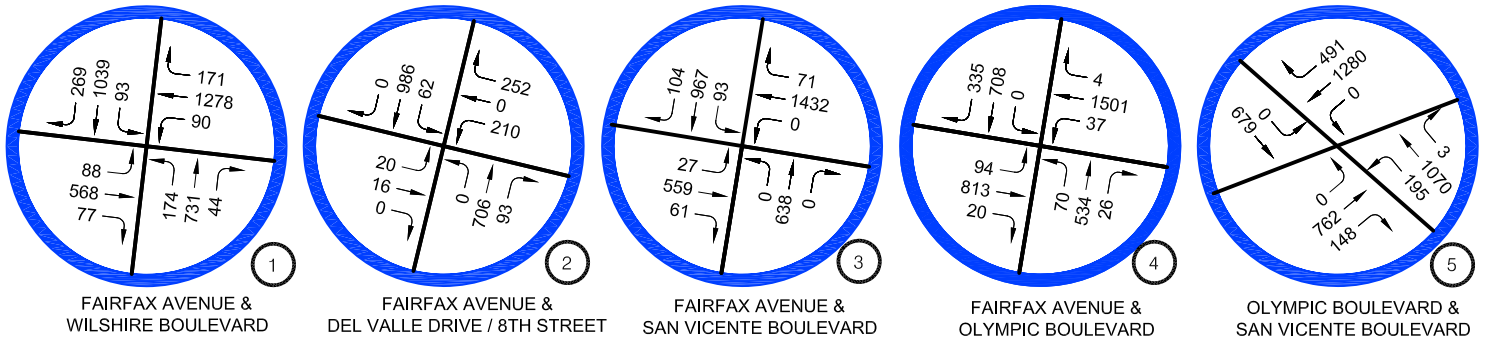
Table 4
Traffic Conditions for Project Driveways

Intersection	Peak Hour	Future (2024) With Project	
		Delay	LOS
Fairfax Avenue & Project Driveway	AM	18.4	C
	PM	17.4	C
8th Street & Project Driveway	AM	14.9	B
	PM	17.4	C

LANE CONFIGURATION



AM PEAK HOUR TRAFFIC VOLUME



PM PEAK HOUR TRAFFIC VOLUME

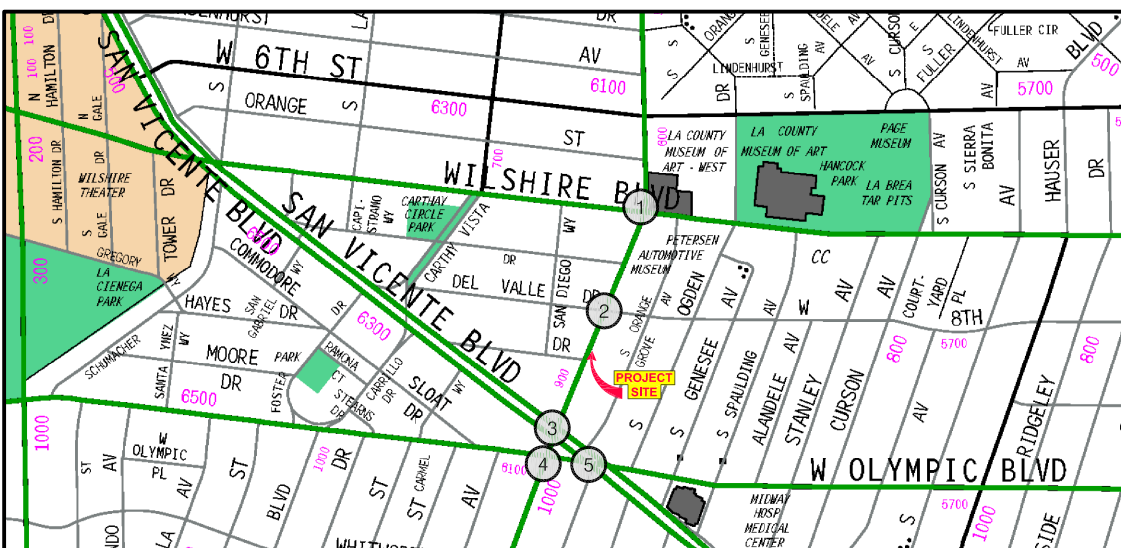
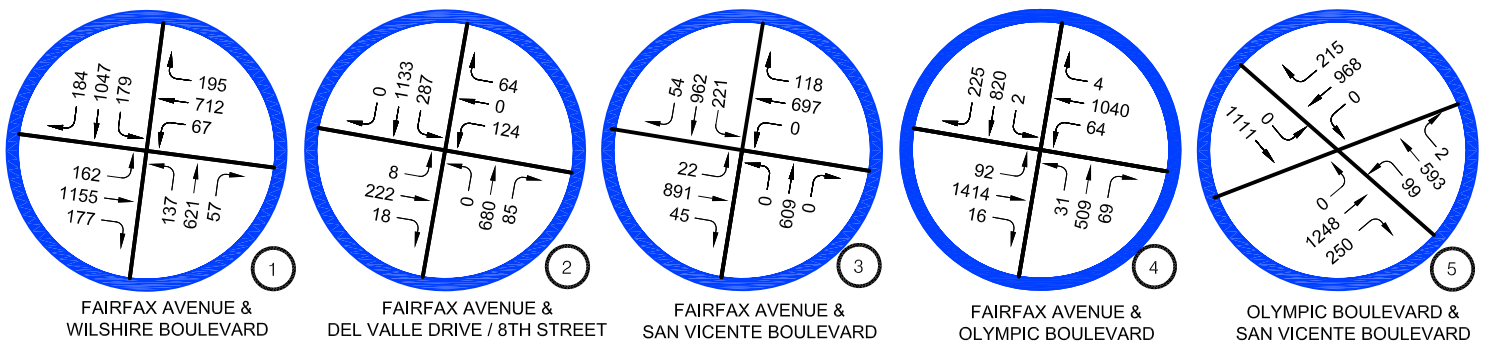


FIGURE 3

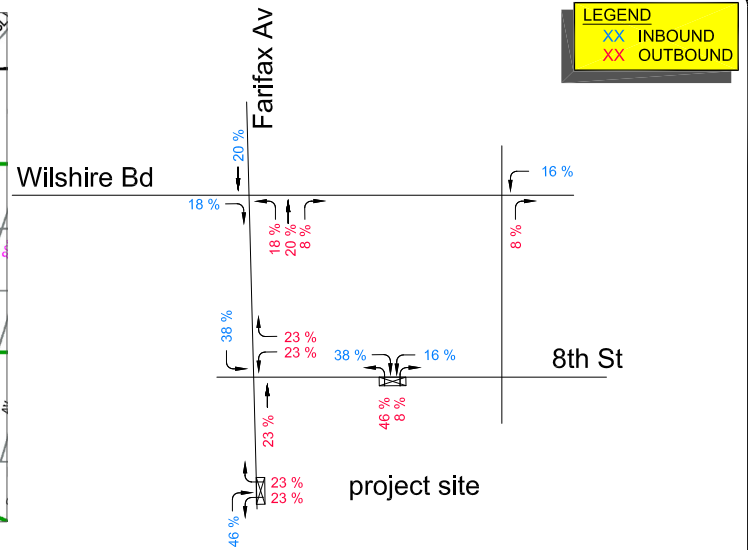
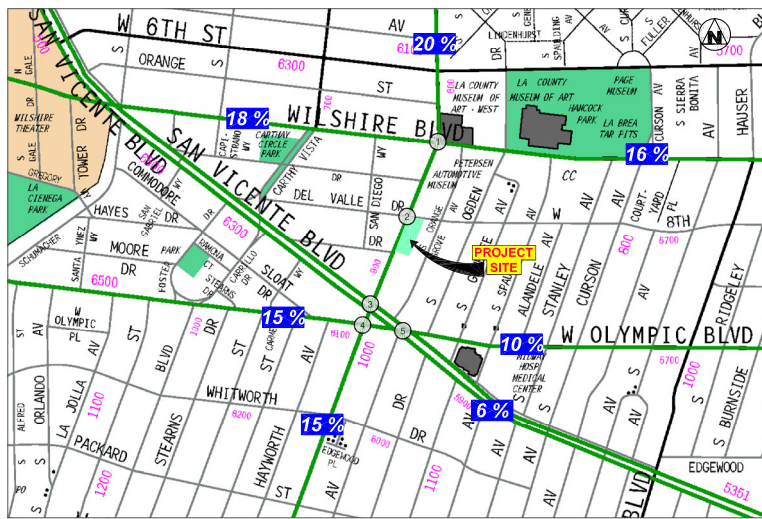
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STUDY INTERSECTION LANE CONFIGURATIONS AND PEAK HOUR TRAFFIC VOLUME

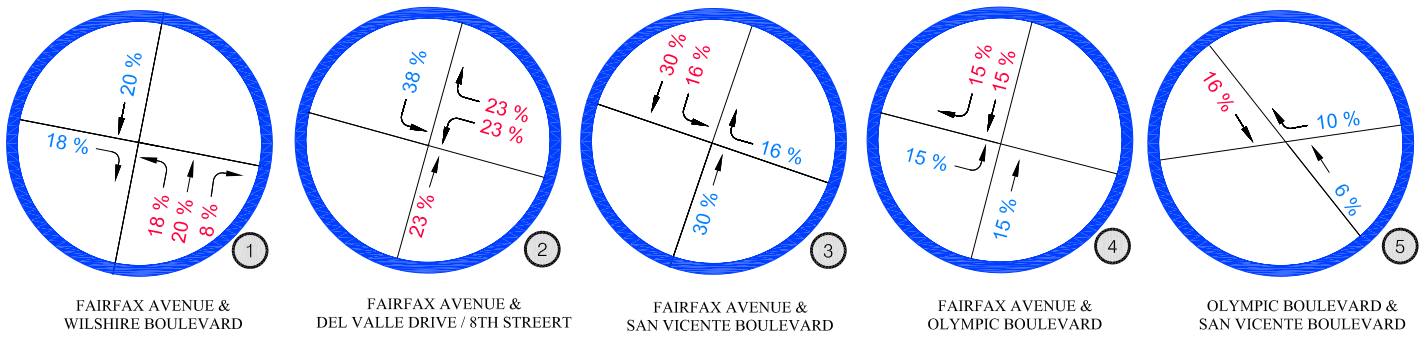


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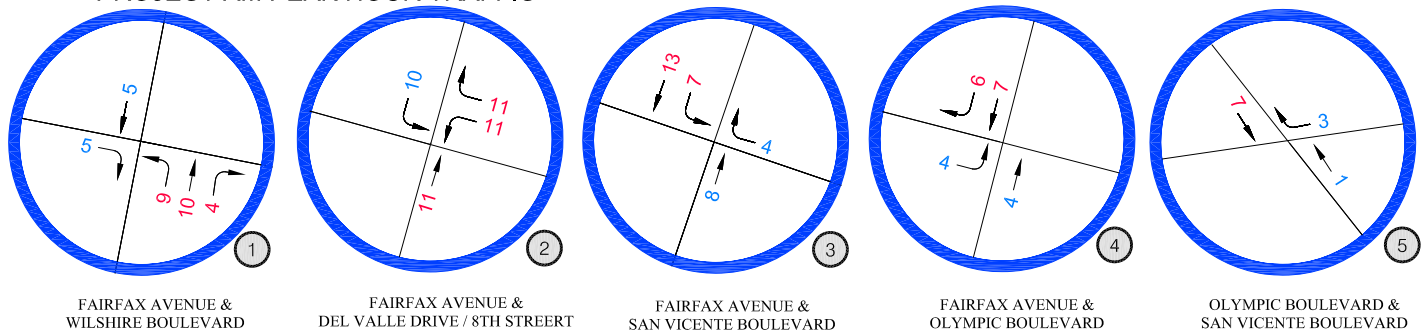
PROJECT TRIP DISTRIBUTION PERCENTAGES



PROJECT TRIPS - In / (Out)

NET ADJACENT AM PEAK HOUR TRIPS			NET ADJACENT PM PEAK HOUR TRIPS			NET STREET AM PEAK HOUR TRIPS			NET STREET PM PEAK HOUR TRIPS		
IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL
27	46	73	48	31	79	25	44	69	45	29	74

PROJECT AM PEAK HOUR TRAFFIC



PROJECT PM PEAK HOUR TRAFFIC

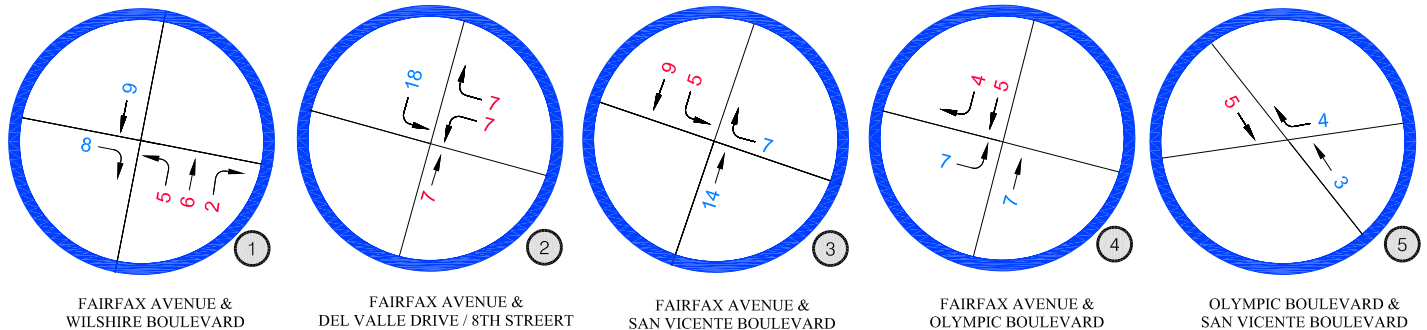


FIGURE 4

12/2020

PROJECT PEAK HOUR TRAFFIC VOLUME DISTRIBUTION AND ASSIGNMENT



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952 Manhattan Beach Bl, #100, Manhattan Beach, CA 90266
 (310) 799 - 8423, otc@overlandtraffic.com

Analysis of Traffic Conditions Without and With the Modified Project

Existing and future traffic volumes without and with the modified Project have been updated to analyze traffic conditions after completion of the modified Project. The tables below show that the project's traffic will not significantly add to the circulation deficiencies in the area. Figure 5 illustrates the existing without and with the Project and Figure 6 shows the future without and with the Project.

Table 5
Existing + Project Traffic Conditions

<u>No.</u>	<u>Intersection</u>	<u>Peak Hour</u>	<u>Existing</u>		<u>Existing + Project</u>	
			<u>Delay</u>	<u>LOS</u>	<u>Delay</u>	<u>LOS</u>
1	Fairfax Avenue & Wilshire Boulevard	AM	85.6	F	86.0	F
		PM	69.8	E	70.5	E
2	Fairfax Avenue & 8th Street / Del Valle Dr	AM	8.7	A	9.4	A
		PM	15.3	B	18.3	B
3	Fairfax Avenue & San Vicente Boulevard	AM	20.9	C	21.1	C
		PM	24.3	C	24.3	C
4	Fairfax Avenue & Olympic Boulevard	AM	34.6	C	39.4	D
		PM	21.8	C	21.9	C
5	Olympic Boulevard & San Vicente Boulevard	AM	27.2	C	27.2	C
		PM	29.4	C	29.4	C

Table 6
Future Cumulative + Project Traffic Conditions

<u>No.</u>	<u>Intersection</u>	<u>Peak Hour</u>	<u>Future (2024) Without Project</u>		<u>Future (2024) With Project</u>	
			<u>Delay</u>	<u>LOS</u>	<u>Delay</u>	<u>LOS</u>
1	Fairfax Avenue & Wilshire Boulevard	AM	105.5	F	106.2	F
		PM	93.7	F	95.7	F
2	Fairfax Avenue & 8th Street / Del Valle Dr	AM	9.8	A	10.1	B
		PM	22.1	C	26.8	C
3	Fairfax Avenue & San Vicente Boulevard	AM	21.7	C	21.9	C
		PM	24.7	C	24.7	C
4	Fairfax Avenue & Olympic Boulevard	AM	51.2	D	53.3	D
		PM	23.6	C	24.8	C
5	Olympic Boulevard & San Vicente Boulevard	AM	28.2	C	28.3	C
		PM	30.0	C	26.1	C

Safety Evaluation

Replacing three existing driveways on Fairfax Avenue with one driveway will improve access conditions and reduce the number of vehicle conflicts with pedestrians and other vehicles along Fairfax Avenue. A median left turn lane provides access from Fairfax Avenue. No access deficiencies are apparent in the site access plans which would be considered significant.

Passenger Loading Evaluation

All parking is located on – site in a parking garage. It is anticipated that all loading will occur from within the parking garage where a valet loading area has been identified on the ground level. In addition, there is an existing passenger loading zone on Fairfax Avenue near the Tom Bergin's Tavern.

Construction Overview

As part of the project's construction, a Construction Traffic Management program would be implemented during the construction phase to minimize potential conflicts associated with construction activity. The project's potential construction impacts may involve temporary construction activities within a roadway that would cause lane or street closures and a temporary loss of on - street parking. However, most of the construction activity would occur on – site.

Construction workers are typically expected to arrive at the project site before 7:00 am and depart before or after the weekday peak hours of 4:00 to 6:00 pm. It is also assumed that truck hauling will be limited to off peak hours. As part of the project's required Construction Management plan, peak hour restrictions on construction worker and haul truck traffic will likely be imposed. Thus, no significant levels of construction worker and / or truck traffic should occur on the street system during the peak hours of traffic.

Temporary traffic impacts from construction may occur during the non - peak hours because of an increase in construction traffic associated with delivery of construction materials; an increase in automobile traffic associated with construction workers, utility changes, drainage facilities, and sewer improvements.

Construction activities are expected to be contained within the existing project site. Safe pedestrian circulation paths adjacent to or around the work areas will be provided by covered pedestrian walkways if necessary and will be maintained as required by a City-approved Construction Management and Work Area Traffic Control Plans.

During demolition, truck traffic would be coming to and going from the project site throughout the day (except for peak hours), with truck staging occurring on - site through most of the construction period. No detours around the construction site are expected; however, flagmen would be used to control traffic movement during the ingress and egress of trucks and heavy equipment.

LADOT requires that construction work site traffic control plan be submitted to LADOT's Citywide Temporary Traffic Control Section or Permit Plan Review Section for review and approval prior to the start of any construction work.

Please call me if you have questions.

Sincerely,


Jerry T. Overland

Attachments

Attachment A - LADOT Approval Letter Prior Project (February 25, 2020)
Attachment B - Plans, Programs, Ordinances and Policy Consistency Worksheet
Attachment C - VMT Calculator Reports (VER 1.3 Update)
Attachment D - Related Project Information
Attachment E - Capacity Worksheets

ATTACHMENT A

**LADOT APPROVAL LETTER PRIOR PROJECT
(February 25, 2020 DOT Case No. CEN 19-48898)**

CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE

830 – 840 S Fairfax Avenue
DOT Case No. CEN 19-48898

Date: February 25, 2020

To: Debbie Lawrence, Senior City Planner
Department of City Planning

From: Wes Pringle, Transportation Engineer
Department of Transportation

Subject: **TRANSPORTATION IMPACT ANALYSIS FOR THE PROPOSED MIXED-USE PROJECT
LOCATED AT 830 – 840 SOUTH FAIRFAX AVENUE (PAR-2019-6307-TOC)**

The Department of Transportation (DOT) has reviewed the transportation analyses prepared by Overland Traffic Consultants, Inc. for the proposed mixed-use project located at 830 – 840 South Fairfax Avenue. In compliance with Senate Bill 743 and the California Environmental Quality Act (CEQA), a vehicle miles traveled (VMT) analysis is required to identify the project's ability to promote the reduction of green-house gas emissions, access to diverse land-uses, and the development of multi-modal networks. The significance of a project's impact in this regard is measured against the VMT thresholds established in DOT's Transportation Assessment Guidelines (TAG), as described below.

DISCUSSION AND FINDINGS

A. Project Description

The project proposes the development of 181 residential units, 28 affordable housing units, 1,600 square feet of high-turnover sit-down restaurant, and 750 square feet of fast-food restaurant. The project site currently contains two apartment buildings which consists of 21 units and 19 units respectively, and an existing 3,829 square foot restaurant/lounge. The project frontage is along South Fairfax Avenue and West 8th Street. The project can be accessed via one driveway along West 8th Street and one driveway along South Fairfax Avenue as illustrated in **Attachment A**.

B. CEQA Screening Threshold

Prior to accounting for trip reductions resulting from the application of Transportation Demand Management (TDM) Strategies, a trip generation analysis was conducted to determine if the project would exceed the net 250 daily vehicle trips screening threshold. Using the City of Los Angeles VMT Calculator tool, which draws upon trip rate estimates published in the Institute of Transportation Engineers' (ITE's) Trip Generation, 9th Edition manual as well as applying trip generation adjustments when applicable, based on sociodemographic data and the built environment factors of the project's surroundings, it was determined that the project **does**

exceed the net 250 daily vehicle trips threshold. A copy of the VMT calculator screening page, with the corresponding net daily trips estimate, is provided as **Attachment B** to this report.

Additionally, the analysis included further discussion of the transportation impact thresholds:

- T-1 Conflicting with plans, programs, ordinances, or policies
- T-2.1 Causing substantial vehicle miles traveled
- T-2.2 Substantially inducing additional automobile travel
- T-3 Substantially increasing hazards due to a geometric design feature or incompatible use

A Project's impacts per Thresholds T-2.1 and 2.2 are determined by using the VMT calculator and are discussed above. The assessment determined that the project would not have a significant transportation impact under any of the above thresholds.

C. Transportation Impacts

On July 30, 2019, pursuant to Senate Bill (SB) 743 and the recent changes to Section 15064.3 of the State's California Environmental Quality Act (CEQA) Guidelines, the City of Los Angeles adopted vehicle miles traveled (VMT) as a criteria in determining transportation impacts under CEQA. The new DOT Transportation Assessment Guidelines (TAG) provide instructions on preparing transportation assessments for land use proposals and defines the significant impact thresholds.

The DOT VMT Calculator tool measures project impact in terms of Household VMT per Capita, and Work VMT per Employee. DOT identified distinct thresholds for significant VMT impacts for each of the seven Area Planning Commission (APC) areas in the City. For the Central APC area, in which the project is located, the following thresholds have been established:

- Household VMT per Capita: 6.0
- Work VMT per Employee: 7.6

As cited in the VMT Analysis report, prepared by Overland Traffic Consultants, Inc., the VMT projections for the proposed project are 6.0 and N/A for the Household and Work VMT's respectively. Therefore, it is concluded that implementation of the Project would result in no significant Household and Work VMT impact. A copy of the VMT Calculator summary report is provided as **Attachment B** to this report.

D. Access and Circulation

During the preparation of the new CEQA guidelines, the State's Office of Planning and Research stressed that lead agencies can continue to apply traditional operational analysis requirements to inform land use decisions provided that such analyses were outside of the CEQA process. The authority for requiring non-CEQA transportation analysis and requiring improvements to address potential circulation deficiencies, lies in the City of Los Angeles' Site Plan Review authority as established in Section 16.05 of the Los Angeles Municipal Code (LAMC), Section

16.05. Therefore, DOT continues to require and review a project's site access, circulation, and operational plan to determine if any safety and access enhancements, transit amenities, intersection improvements, traffic signal upgrades, neighborhood traffic calming, or other improvements are needed. In accordance with this authority, the project has completed a circulation analysis using a "level of service" screening methodology that indicates that the trips generated by the proposed development will likely result in adverse circulation conditions at one location. DOT has reviewed this analysis and determined that it adequately discloses operational concerns. A copy of the circulation analysis table that summarizes these potential deficiencies is provided as **Attachment C** to this report.

PROJECT REQUIREMENTS

1. Construction Impacts

DOT recommends that a construction work site traffic control plan be submitted to DOT's Citywide Temporary Traffic Control Section or Permit Plan Review Section for review and approval prior to the start of any construction work. Refer to <http://ladot.lacity.org/what-we-do/plan-review> to determine which section to coordinate review of the work site traffic control plan. The plan should show the location of any roadway or sidewalk closures, traffic detours, haul routes, hours of operation, protective devices, warning signs and access to abutting properties. DOT also recommends that all construction related truck traffic be restricted to off-peak hours.

2. Highway Dedication and Street Widening Requirements

Per the new Mobility Element of the General Plan, **Fairfax Avenue** has been designated as an Avenue II which would require a 28-foot half-width roadway within a 43-foot half-width right-of-way and **8th Street** has been designated as a Collector which would require a 20-foot half-width roadway within a 33-foot half-width right-of-way. The applicant should check with Bureau of Engineering's Land Development Group to determine the specific highway dedication, street widening and/or sidewalk requirements for this project.

3. Parking Requirements

The traffic study indicated that the project would provide 239 automotive parking spaces in three levels of parking in which 38 parking spaces would be assigned to the commercial portion of the project and 201 parking spaces would be assigned to the residential units. The 38 parking spaces assigned to the commercial portion would replace the existing 23 parking spaces for Tom Bergin's. Approximately 146 bike spaces (130 long term and 16 short term spaces) are also planned. The applicant should check with the Department of Building and Safety on the number of Code-required parking spaces needed for the project.

4. Driveway Access and Circulation

The proposed site plan illustrated in **Attachment A** is acceptable to DOT; however, review of the study does not constitute approval of internal circulation schemes and driveway dimensions. Those require separate review and approval and should be coordinated with

DOT's Citywide Planning Coordination Section (201 N. Figueroa Street, 5th Floor, Station 3, @ 213-482-7024). In order to minimize and prevent last minute building design changes, the applicant should contact DOT, prior to the commencement of building or parking layout design efforts, for driveway width and internal circulation requirements. Any changes to the project's site access, circulation scheme, or loading/unloading area after issuance of this report would require separate review and approval and should be coordinated as well.

5. Development Review Fees

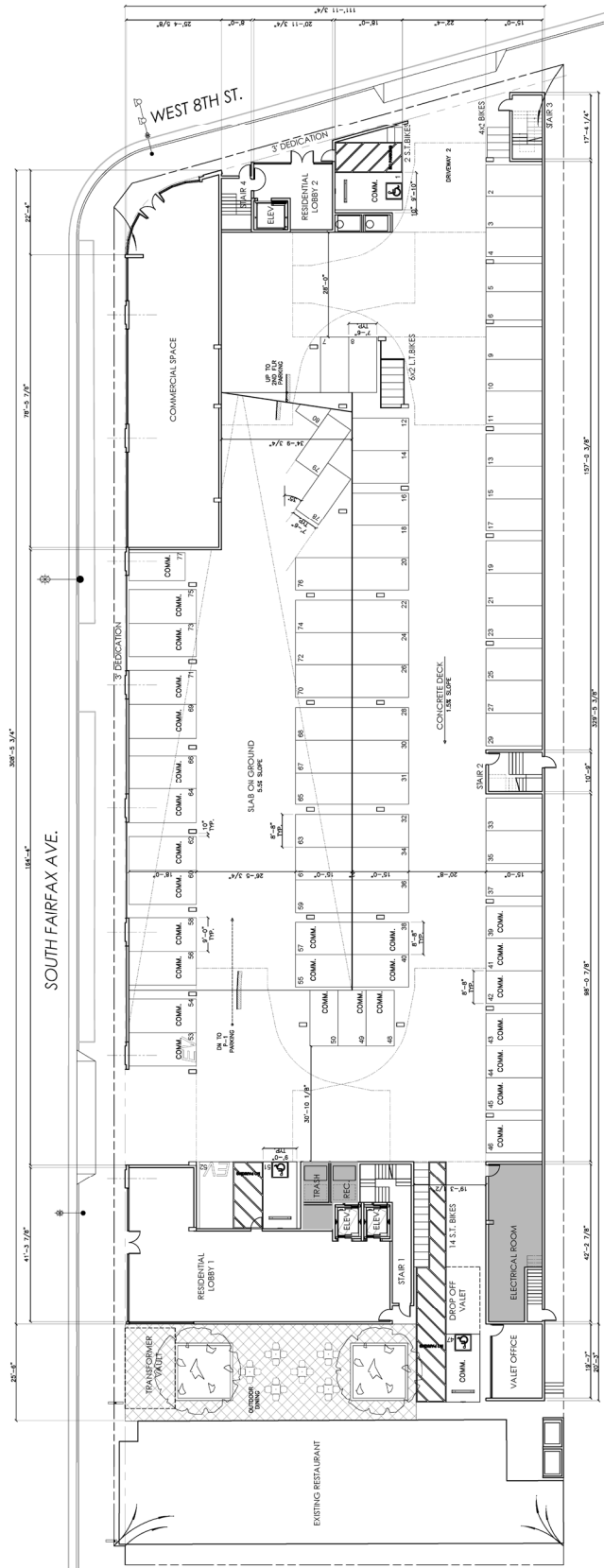
An ordinance adding Section 19.15 to the Los Angeles Municipal Code relative to application fees paid to DOT for permit issuance activities was adopted by the Los Angeles City Council in 2009 and updated in 2014. Ordinance No. 183270 identifies specific fees for traffic study review, condition clearance, and permit issuance. The applicant shall comply with any applicable fees per this ordinance.

If you have any questions, please contact Kevin Arucan at (213) 972-4970.

Attachments

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c: Meg Greenfield, Council District 4
Bhuvan Bajaj, Hollywood/Wilshire District Office, DOT
Taimour Tanavoli, Case Management Office, DOT
Matthew Masuda, Central District, BOE
Jerry Overland, Overland Traffic Consultants, Inc.



1ST FLOOR PLAN

SCALE: 3/32"=1'

PARKING COUNT	COMMERCIAL	RESIDENTIAL	TOTAL
STANDARD	11	1	12

FIGURE 2a

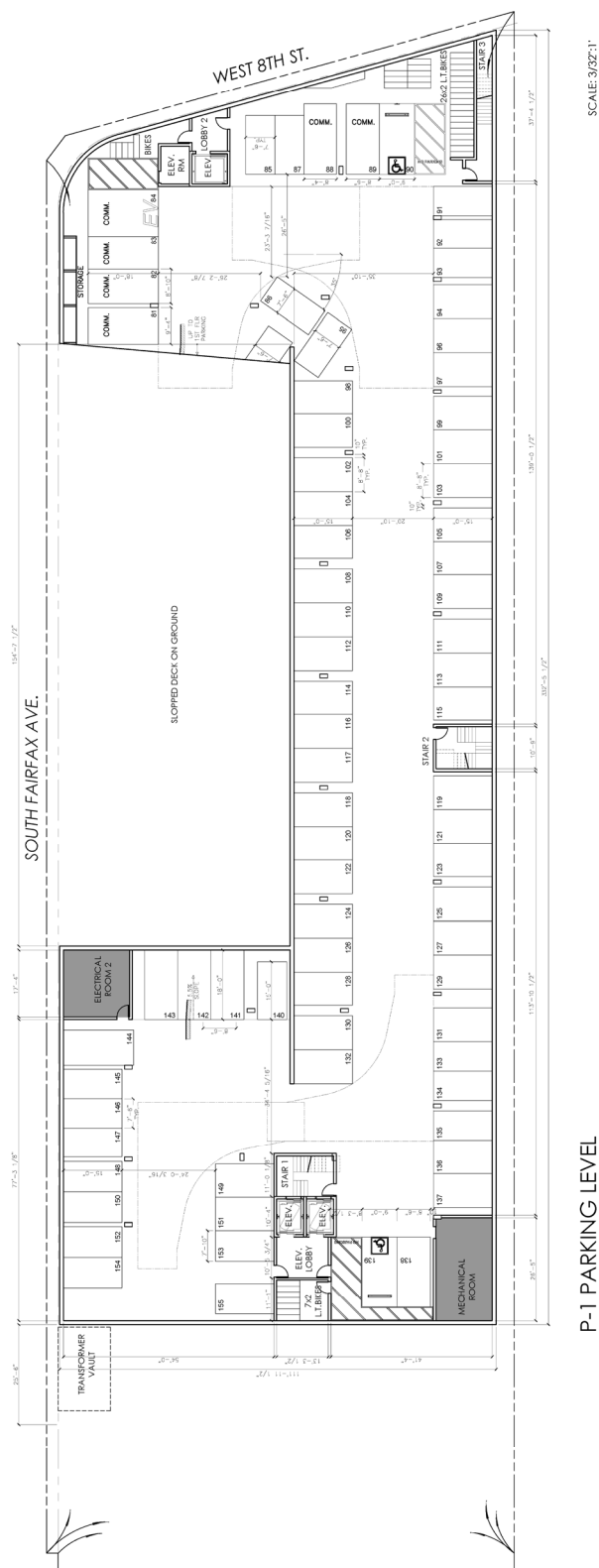
11/2019

SITE PLAN
GROUND LEVEL



Overland Traffic Consultants, Inc.

952 Manhattan Beach Bl. #100, Manhattan Beach, CA 90266
(661) 799 - 8423, OTC@overlandtraffic.com



11/2019

 **Overland Traffic Consultants, Inc.**
952 Manhattan Beach Bl. #100, Manhattan Beach, CA 90266
(661) 799 - 8423, OTC@overlandtraffic.com

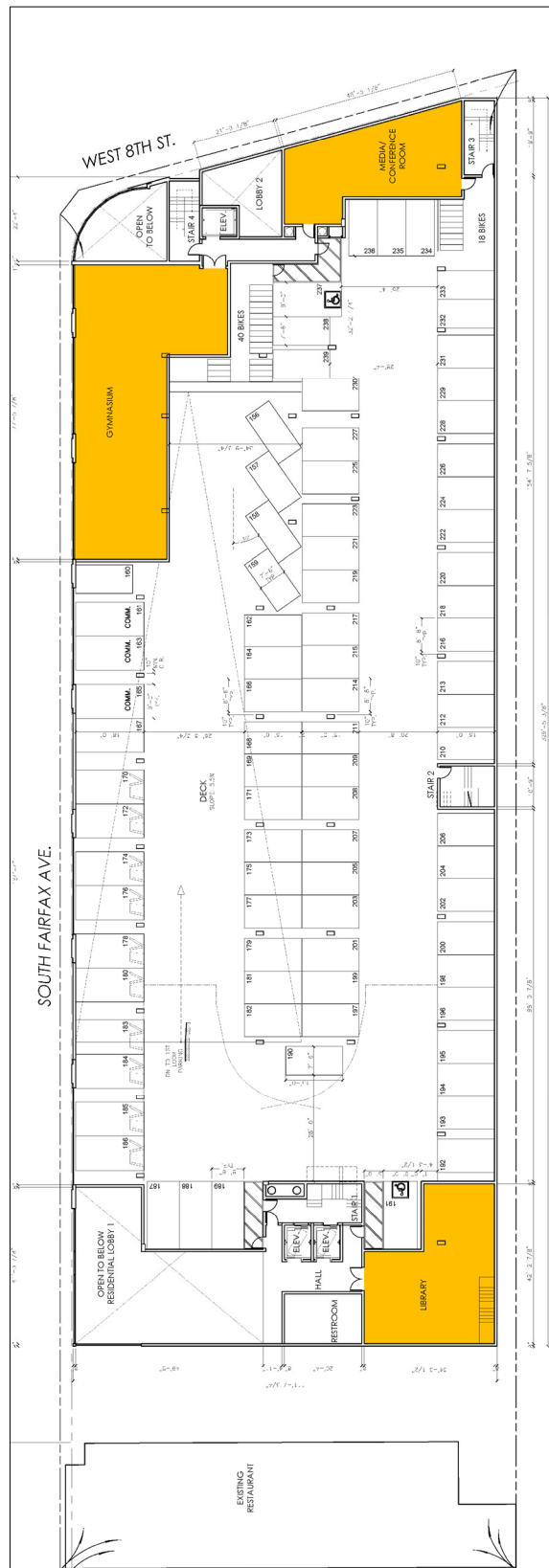


FIGURE 2c

11/2019

SITE PLAN
LEVEL 2



Overland Traffic Consultants, Inc.

952 Manhattan Beach Bl. #100, Manhattan Beach, CA 90266
(661) 799 - 8423, OTC@overlandtraffic.com

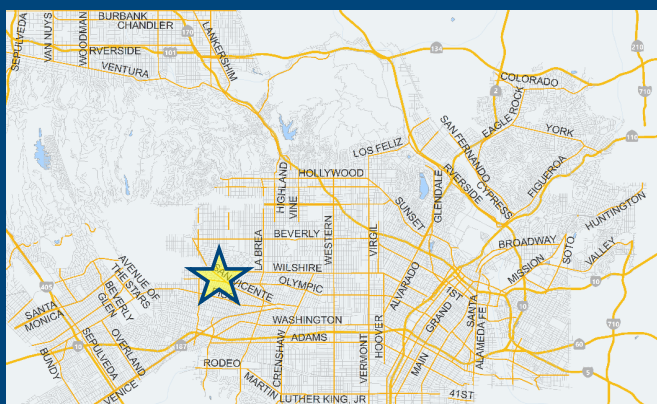
CITY OF LOS ANGELES VMT CALCULATOR Version 1.2



Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?

Project Information

Project: 800 S Fairfax Avenue
Scenario: [www](#)
Address: 800 S FAIRFAX AVE, 90036



If the project is replacing an existing number of residential units with a smaller number of residential units, is the proposed project located within one-half mile of a fixed-rail or fixed-guideway transit station?

☐ Yes ☐ No

Existing Land Use

Land Use Type	Value	Unit
Housing Multi-Family	40	DU
Housing Multi-Family	40	DU

[Click here to add a single custom land use type \(will be included in the above list\)](#)

Proposed Project Land Use

Land Use Type	Value	Unit
Retail Fast-Food Restaurant	0.75	ksf
Housing Multi-Family	181	DU
Retail High-Turnover Sit-Down Restaurant	1.6	ksf
Retail Fast-Food Restaurant	0.75	ksf
Housing Affordable Housing - Family	28	DU

[Click here to add a single custom land use type \(will be included in the above list\)](#)

Project Screening Summary

Existing Land Use	Proposed Project
156 Daily Vehicle Trips	931 Daily Vehicle Trips
919 Daily VMT	5,663 Daily VMT

Tier 1 Screening Criteria

Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station. ☐

Tier 2 Screening Criteria

The net increase in daily trips < 250 trips **775**
Net Daily Trips

The net increase in daily VMT ≤ 0 **4,744**
Net Daily VMT

The proposed project consists of only retail land uses ≤ 50,000 square feet total. **2,350**
ksf

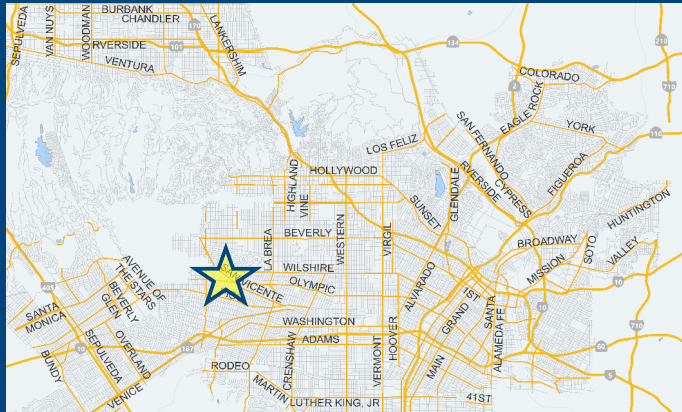
The proposed project is required to perform VMT analysis.

CITY OF LOS ANGELES VMT CALCULATOR Version 1.2



Project Information

Project: 800 S Fairfax Avenue
Scenario:
Address: 800 S FAIRFAX AVE, 90036



TDM Strategies

Select each section to show individual strategies

Use ☒ to denote if the TDM strategy is part of the proposed project or is a mitigation strategy

Max Home Based TDM Achieved?

Proposed Project

No

With Mitigation

No

Max Work Based TDM Achieved?

No

No

A Parking

Reduce Parking Supply

city code parking provision for the project site: 293

actual parking provision for the project site: 239 ☒ Proposed Prj ☐ Mitigation

Unbundle Parking

monthly parking cost (dollar) for the project site: 75 ☒ Proposed Prj ☐ Mitigation

Parking Cash-Out

percent of employees eligible: 50 ☐ Proposed Prj ☐ Mitigation

Price Workplace Parking

daily parking charge (dollar): 6.00 ☐ Proposed Prj ☐ Mitigation

percent of employees subject to priced parking: 25 ☐ Proposed Prj ☐ Mitigation

Residential Area Parking Permits

cost (dollar) of annual permit: 200 ☐ Proposed Prj ☐ Mitigation

B Transit

C Education & Encouragement

D Commute Trip Reductions

E Shared Mobility

F Bicycle Infrastructure

G Neighborhood Enhancement

Analysis Results

Proposed Project

With Mitigation

787
Daily Vehicle Trips

787
Daily Vehicle Trips

4,815
Daily VMT

4,815
Daily VMT

6.0
Household VMT per Capita

6.0
Household VMT per Capita

N/A
Work VMT per Employee

N/A
Work VMT per Employee

Significant VMT Impact?

Household: No
Threshold = 6.0
15% Below APC

Household: No
Threshold = 6.0
15% Below APC

Work: N/A
Threshold = 7.6
15% Below APC

Work: N/A
Threshold = 7.6
15% Below APC

Proposed Project Land Use Type	Value	Unit
Housing Multi-Family	181	DU
Retail High-Turnover Sit-Down Restaurant	1.6	ksf
Retail Fast-Food Restaurant	0.75	ksf
Housing Affordable Housing - Family	28	DU

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: December 20, 2019

Project Name: 800 S Fairfax Avenue

Project Scenario:

Project Address: 800 S FAIRFAX AVE, 90036



Version 1.2

Project Information			
Land Use Type		Value	Units
Housing	Single Family	0	DU
	Multi Family	181	DU
	Townhouse	0	DU
	Hotel	0	Rooms
	Motel	0	Rooms
Affordable Housing	Family	28	DU
	Senior	0	DU
	Special Needs	0	DU
	Permanent Supportive	0	DU
Retail	General Retail	0.000	ksf
	Furniture Store	0.000	ksf
	Pharmacy/Drugstore	0.000	ksf
	Supermarket	0.000	ksf
	Bank	0.000	ksf
	Health Club	0.000	ksf
	High-Turnover Sit-Down Restaurant	1.600	ksf
	Fast-Food Restaurant	0.750	ksf
	Quality Restaurant	0.000	ksf
	Auto Repair	0.000	ksf
	Home Improvement	0.000	ksf
	Free-Standing Discount	0.000	ksf
	Movie Theater	0	Seats
Office	General Office	0.000	ksf
	Medical Office	0.000	ksf
Industrial	Light Industrial	0.000	ksf
	Manufacturing	0.000	ksf
	Warehousing/Self-Storage	0.000	ksf
School	University	0	Students
	High School	0	Students
	Middle School	0	Students
	Elementary	0	Students
	Private School (K-12)	0	Students

Project and Analysis Overview

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: December 20, 2019

Project Name: 800 S Fairfax Avenue

Project Scenario:

Project Address: 800 S FAIRFAX AVE, 90036



Version 1.2

Analysis Results			
Total Employees: 11			
Total Population: 496			
Proposed Project		With Mitigation	
787	Daily Vehicle Trips	787	Daily Vehicle Trips
4,815	Daily VMT	4,815	Daily VMT
6	Household VMT per Capita	6	Household VMT per Capita
N/A	Work VMT per Employee	N/A	Work VMT per Employee
Significant VMT Impact?			
APC: Central			
Impact Threshold: 15% Below APC Average			
Household = 6.0			
Work = 7.6			
Proposed Project		With Mitigation	
VMT Threshold	Impact	VMT Threshold	Impact
Household > 6.0	No	Household > 6.0	No
Work > 7.6	N/A	Work > 7.6	N/A

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: December 20, 2019

Project Name: 800 S Fairfax Avenue

Project Scenario:

Project Address: 800 S FAIRFAX AVE, 90036



Version 1.2

TDM Strategy Inputs				
Strategy Type		Description	Proposed Project	Mitigations
Parking	Reduce parking supply	City code parking provision (spaces)	293	293
		Actual parking provision (spaces)	239	239
	Unbundle parking	Monthly cost for parking (\$)	\$75	\$75
	Parking cash-out	Employees eligible (%)	0%	0%
	Price workplace parking	Daily parking charge (\$)	\$0.00	\$0.00
		Employees subject to priced parking (%)	0%	0%
	Residential area parking permits	Cost of annual permit (\$)	\$0	\$0
(cont. on following page)				

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: December 20, 2019

Project Name: 800 S Fairfax Avenue

Project Scenario:

Project Address: 800 S FAIRFAX AVE, 90036



Version 1.2

TDM Strategy Inputs, Cont.			
Strategy Type	Description	Proposed Project	Mitigations
Transit	Reduction in headways (increase in frequency) (%)	0%	0%
	Reduce transit headways	Existing transit mode share (as a percent of total daily trips) (%)	0%
		Lines within project site improved (<50%, >=50%)	0
	Implement neighborhood shuttle	Degree of implementation (low, medium, high)	0
		Employees and residents eligible (%)	0%
	Transit subsidies	Employees and residents eligible (%)	0%
		Amount of transit subsidy per passenger (daily equivalent) (\$)	\$0.00
Education & Encouragement	Voluntary travel behavior change program	Employees and residents participating (%)	0%
	Promotions and marketing	Employees and residents participating (%)	0%
(cont. on following page)			

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: December 20, 2019

Project Name: 800 S Fairfax Avenue

Project Scenario:

Project Address: 800 S FAIRFAX AVE, 90036



Version 1.2

TDM Strategy Inputs, Cont.				
Strategy Type		Description	Proposed Project	Mitigations
Commute Trip Reductions	Required commute trip reduction program	Employees participating (%)	0%	0%
	Alternative Work Schedules and Telecommute Program	Employees participating (%)	0%	0%
		Type of program	0	0
		Degree of implementation (low, medium, high)	0	0
	Employer sponsored vanpool or shuttle	Employees eligible (%)	0%	0%
		Employer size (small, medium, large)	0	0
	Ride-share program	Employees eligible (%)	0%	0%
Shared Mobility	Car share	Car share project setting (Urban, Suburban, All Other)	0	0
	Bike share	Within 600 feet of existing bike share station - OR- implementing new bike share station (Yes/No)	0	0
	School carpool program	Level of implementation (Low, Medium, High)	0	0
(cont. on following page)				

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: December 20, 2019

Project Name: 800 S Fairfax Avenue

Project Scenario:

Project Address: 800 S FAIRFAX AVE, 90036



Version 1.2

TDM Strategy Inputs, Cont.				
Strategy Type		Description	Proposed Project	Mitigations
Bicycle Infrastructure	Implement/Improve on-street bicycle facility	Provide bicycle facility along site (Yes/No)	0	0
	Include Bike parking per LAMC	Meets City Bike Parking Code (Yes/No)	Yes	Yes
	Include secure bike parking and showers	Includes indoor bike parking/lockers, showers, & repair station (Yes/No)	0	0
Neighborhood Enhancement	Traffic calming improvements	Streets with traffic calming improvements (%)	0%	0%
		Intersections with traffic calming improvements (%)	0%	0%
	Pedestrian network improvements	Included (within project and connecting off-site/within project only)	0	0

CITY OF LOS ANGELES VMT CALCULATOR

Report 3: TDM Outputs

Date: December 20, 2019
 Project Name: 800 S Fairfax Avenue
 Project Scenario:
 Project Address: 800 S FAIRFAX AVE, 90036



Version 1.2

TDM Adjustments by Trip Purpose & Strategy

Place type: Compact Infill

		Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction		Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Parking	Reduce parking supply	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	TDM Strategy Appendix, Parking sections 1 - 5
	Unbundle parking	9%	9%	0%	0%	9%	9%	0%	0%	0%	0%	0%	0%	
	Parking cash-out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Price workplace parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Residential area parking permits	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Transit	Reduce transit headways	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Transit sections 1 - 3
	Implement neighborhood shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Transit subsidies	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Education & Encouragement	Voluntary travel behavior change program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Education & Encouragement sections 1 - 2
	Promotions and marketing	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Commute Trip Reductions	Required commute trip reduction program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Commute Trip Reductions sections 1 - 4
	Alternative Work Schedules and Telecommute Program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Employer sponsored vanpool or shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Ride-share program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Shared Mobility	Car-share	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Shared Mobility sections 1 - 3
	Bike share	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	School carpool program	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

CITY OF LOS ANGELES VMT CALCULATOR

Report 3: TDM Outputs

Date: December 20, 2019
 Project Name: 800 S Fairfax Avenue
 Project Scenario:
 Project Address: 800 S FAIRFAX AVE, 90036



TDM Adjustments by Trip Purpose & Strategy, Cont.

Place type: Compact Infill

		Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction		Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Bicycle Infrastructure	Implement/ Improve on-street bicycle facility	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Bicycle Infrastructure sections 1 - 3
	Include Bike parking per LAMC	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
	Include secure bike parking and showers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Neighborhood Enhancement	Traffic calming improvements	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Neighborhood Enhancement
	Pedestrian network improvements	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Final Combined & Maximum TDM Effect

		Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction	
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated
COMBINED TOTAL		18%	18%	10%	10%	18%	18%	10%	10%	10%	10%	10%	10%
MAX. TDM EFFECT		18%	18%	10%	10%	18%	18%	10%	10%	10%	10%	10%	10%

$$= \text{Minimum } (X\%, 1-[(1-A)*(1-B)...])$$

where X%=

PLACE	urban	75%
TYPE	compact infill	40%
MAX:	suburban center	20%
	suburban	15%

Note: $(1-[(1-A)*(1-B)...])$ reflects the dampened combined effectiveness of TDM Strategies (e.g., A, B,...). See the TDM Strategy Appendix (*Transportation Assessment Guidelines Attachment G*) for further discussion of dampening.

CITY OF LOS ANGELES VMT CALCULATOR

Report 4: MXD Methodology

Date: December 20, 2019

Project Name: 800 S Fairfax Avenue

Project Scenario:

Project Address: 800 S FAIRFAX AVE, 90036



Version 1.2

MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	281	-27.8%	203	6.5	1,827	1,320
Home Based Other Production	752	-40.8%	445	5.2	3,910	2,314
Non-Home Based Other Production	43	-14.0%	37	7.3	314	270
Home-Based Work Attraction	17	-64.7%	6	8.0	136	48
Home-Based Other Attraction	234	-41.9%	136	7.0	1,638	952
Non-Home Based Other Attraction	118	-11.9%	104	7.3	861	759

MXD Methodology with TDM Measures

	<i>Proposed Project</i>			<i>Project with Mitigation Measures</i>		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	-17.9%	167	1,084	-17.9%	167	1,084
Home Based Other Production	-17.9%	365	1,900	-17.9%	365	1,900
Non-Home Based Other Production	-9.8%	33	244	-9.8%	33	244
Home-Based Work Attraction	-9.8%	5	43	-9.8%	5	43
Home-Based Other Attraction	-9.8%	123	859	-9.8%	123	859
Non-Home Based Other Attraction	-9.8%	94	685	-9.8%	94	685

MXD VMT Methodology Per Capita & Per Employee

Total Population: 496

Total Employees: 11

APC: Central

	<i>Proposed Project</i>	<i>Project with Mitigation Measures</i>
Total Home Based Production VMT	2,984	2,984
Total Home Based Work Attraction VMT	43	43
Total Home Based VMT Per Capita	6.0	6.0
Total Work Based VMT Per Employee	N/A	N/A



Table 6
Future Cumulative + Project Traffic Conditions

No.	Intersection	Peak Hour	Future (2023) Without Project		Future (2023) With Project	
			<u>Delay</u>	<u>LOS</u>	<u>Delay</u>	<u>LOS</u>
1	Fairfax Avenue & Wilshire Boulevard	AM	99.6	F	100.2	F
		PM	86.7	F	87.5	F
2	Fairfax Avenue & 8th Street / Del Valle Dr	AM	9.6	A	9.8	A
		PM	19.4	B	23.6	C
3	Fairfax Avenue & San Vicente Boulevard	AM	21.4	C	21.6	C
		PM	24.6	C	24.6	C
4	Fairfax Avenue & Olympic Boulevard	AM	48.4	D	50.1	D
		PM	23.0	C	23.9	C
5	Olympic Boulevard & San Vicente Boulevard	AM	27.7	C	27.8	C
		PM	29.7	C	31.2	C

ATTACHMENT B

PLANS, PROGRAMS, ORDINANCES AND POLICY CONSISTENCY WORKSHEET

Plans, Policies and Programs Consistency Worksheet

The worksheet provides a structured approach to evaluate the threshold T-1 question below, that asks whether a project conflicts with a program, plan, ordinance, or policy addressing the circulation system. The intention of the worksheet is to streamline the project review by highlighting the most relevant plans, policies and programs when assessing potential impacts to the City's circulation system.

Threshold T-1: Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities?

I. SCREENING CRITERIA FOR POLICY ANALYSIS

If the answer is 'yes' to any of the following questions, further analysis will be required:

- Does the project require a discretionary action that requires the decision maker to find that the project would substantially conform to the purpose, intent, and provisions of the General Plan?
Yes
The project requests TOC base incentives (density, floor area and parking) and on-menu incentives (yard reduction, open space, and transitional height).
- Is the project known to directly conflict with a transportation plan, policy, or program adopted to support multimodal transportation options or public safety?
No
- Is the project required to or proposing to make any voluntary modifications to the public right-of-way (i.e., dedications and/or improvements in the right-of-way, reconfigurations of curb line, etc.)?
Yes

II. PLAN CONSISTENCY ANALYSIS

A. Mobility Plan 2035 Classification Standards for Dedications and Improvements

- A.1 Does the project include additions or new construction along a street designated as a Boulevard I, and II, and/or Avenue I, II, or III on property zoned for R3 or less restrictive zone?
Yes, sidewalk and driveway construction
- A.2 Is the project required to make additional dedications or improvements to the Public Right of Way as demonstrated by the street designation?
Yes
- A.3 Is the project making the dedications and improvements as necessary to meet the designated dimensions of the fronting street (Boulevard I, and II, or Avenue I, II, or III)?
Yes
- A.4 Is the project applicant asking to waive from the dedication standards?
No

Lists any streets subject to dedications or voluntary dedications and include existing roadway and sidewalk widths, required roadway and sidewalk widths, and proposed roadway and sidewalk width or waivers.

Fairfax Avenue is north – south Avenue II street which calls for a 56 - foot roadway on 86 feet of right - of - way (28 - foot half roadway and 43 - foot half right - of - way). Fairfax Avenue is currently developed to a 30 - foot half roadway and 40 - foot half right - of - way. A 3-foot dedication but no street widening would be required adjacent to the project site.

8th Street is east – west Collector street which calls for a 40 - foot roadway on 66 feet of right - of - way (20 - foot half roadway and 33 - foot half right - of - way). Eight Street is currently developed to a 22 - foot half roadway and 30 - foot half right - of – way. According to the Mobility Element Street standards for 8th Street, a 3-foot dedication but no street widening would be required adjacent to the project site.

Is the project within the service area of Metro Bike Share, or is there demonstrated demand for micro- mobility services?

No

B. Mobility Plan 2035 Policy Alignment with Project-Initiated Changes

B.1 Does the project physically modify the curb placement or turning radius and/or physically alter the sidewalk and parkways space that changes how people access a property?

No

Driveway Access

Mobility Plan 2035 Program PL.1. Driveway Access. Require driveway access to buildings from non-arterial streets or alleys (where feasible) to minimize interference with pedestrian access and vehicular movement.

Project is removing three existing driveways on Fairfax Avenue and one on 8th Street will be removed. New vehicle access to the parking garage will be provided via one driveway on Fairfax Avenue south of 8th Street and one driveway on 8th Street east of Fairfax Avenue.

Citywide Design Guidelines - Guideline 2: Carefully incorporate vehicular access such that it does not degrade the pedestrian experience.

Project is following Design Guideline 2 by reducing the number of existing driveways and maintain existing Fairfax Avenue access to Tom Bergin's Tavern.

Site Planning Best Practices:

- Prioritize pedestrian access first and automobile access second. Orient parking and driveways toward the rear or side of buildings and away from the public right-of-way. On corner lots, parking should be oriented as far from the corner as possible.
- Minimize both the number of driveway entrances and overall driveway widths.
- Do not locate drop-off/pick-up areas between principal building entrances and the adjoining sidewalks.
- Orient vehicular access as far from street intersections as possible.
- Place drive-thru elements away from intersections and avoid placing them so that they create a barrier between the sidewalk and building entrance(s).

- Ensure that loading areas do not interfere with on-site pedestrian and vehicular circulation by separating loading areas and larger commercial vehicles from areas that are used for public parking and public entrances.

Project is following Site Planning Best Practices

B.2 Does the project add new driveways along a street designated as an Avenue or a Boulevard that conflict with LADOT's Driveway Design Guidelines (See Sec. 321 in the Manual of Policies and Procedures) by any of the following?

Yes, relocating one driveway on Fairfax Avenue to maintain access to Tom Bergin's Tavern.

- Locating new driveways for residential properties on an Avenue or Boulevard, and access is otherwise possible using an alley or a collector/local street, or
- Locating new driveways for industrial or commercial properties on an Avenue or Boulevard and access is possible along a collector/local street, or
- The total number of new driveways exceeds 1 driveway per every 200 feet along on the Avenue or Boulevard frontage, or
- Locating new driveways on an Avenue or Boulevard within 150 feet from the intersecting street, or
- Locating new driveways on a collector or local street within 75 feet from the intersecting street, or
- Locating new driveways near mid-block crosswalks, requiring relocation of the mid-block crosswalk

Project is following Driveway Design Guidelines

Impact Analysis

Once the project is reviewed relevant to plans and policies, and existing facilities that may be impacted by the project, the analysis will need to answer the following two questions in concluding if there is an impact due to plan inconsistency.

B.2.1 Would the physical changes in the public right of way or new driveways that conflict with LADOT's Driveway Design Guidelines degrade the experience of vulnerable roadway users such as modify, remove, or otherwise negatively impact existing bicycle, transit, and/or pedestrian infrastructure?

No

B.2.2 Would the physical modifications or new driveways that conflict with LADOT's Driveway Design Guidelines preclude the City from advancing the safety of vulnerable roadway users?

No

C. Network Access

C. 1 Alley, Street and Stairway Access

C.1.1 Does the project propose to vacate or otherwise restrict public access to a street, alley, or public stairway?

No

C.2 New Cul-de-sacs

C.2.1 Does the project create a cul-de-sac or is the project located adjacent to an existing cul-de-sac?

N/A

C.2.2 If yes, will the cul-de-sac maintain convenient and direct public access to people walking and biking to the adjoining street network?

N/A

D. Parking Supply and Transportation Demand Management

D.1 Would the project propose a supply of onsite parking that exceeds the baseline amount as required in the Los Angeles Municipal Code or a Specific plan, whichever requirement prevails?

No

D.2 Would the project propose to actively manage the demand of parking by independently pricing the supply to all users (e.g., parking cash-out), or for residential properties, unbundle the supply from the lease or sale of residential units?

No

D.3 Would the project provide the minimum on and off-site bicycle parking spaces as required by Section 12.21 A.16 of the LAMC?

Yes

D.4 Does the Project include more than 25,000 square feet of gross floor area construction of new non- residential gross floor?

No

D.5 Does the project comply with the City's TDM Ordinance in Section 12.26 J of the LAMC?

N/A

E. Consistency with Regional Plans

This section addresses potential inconsistencies with greenhouse gas (GHG) reduction targets forecasted in the Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP) / Sustainable Communities Strategy (SCS).

- E.1 Does the Project apply one the City's efficiency-based impact thresholds (i.e., VMT per capita, VMT per employee, or VMT per service population) as discussed in Section 2.2.3 of the TAG?

Yes

Does the Project or Plan result in a significant VMT impact?

No

- E.2 Does the Project result in a net increase in VMT?

Yes

The Project generates a net increase in 5,031 Daily VMT (existing 1,078 VMT – 6,109 VMT).

Further evaluation to determine by the VMT Calculator shows the Project would be consistent with VMT and GHG reduction goals of the SCAG RTP/SCS. The Project VMT analysis demonstrates no significant transportation impact by applying an efficiency-based impact threshold (i.e., VMT per capita) in the impact analysis. Less than significant project impact conclusion is sufficient in demonstrating there is no cumulative VMT impact. Projects that fall under the City's efficiency-based impact thresholds are already shown to align with the long-term VMT and GHG reduction goals of SCAG's RTP/SCS.

ATTACHMENT C
VMT CALCULATOR REPORTS (VER 1.3 UPDATE)

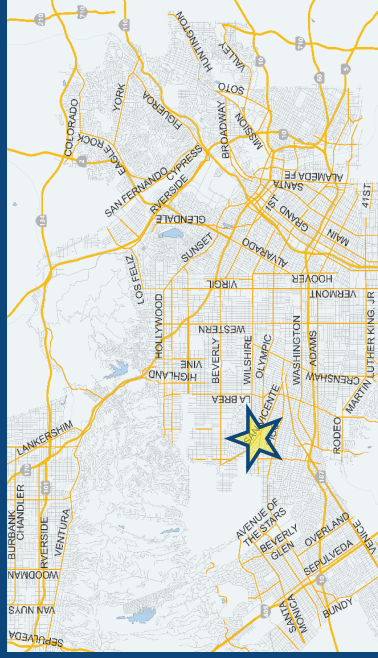
CITY OF LOS ANGELES VMT CALCULATOR Version 1.3



Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?

Project Information

Project: 800 S. Fairfax Avenue
Scenario: December 2020 supplemental update
Address: 800 S FAIRFAX AVE, 90036



Is the project replacing an existing number of residential units with a smaller number of residential units AND is located within one-half mile of a fixed-rail or fixed-guideway transit

☐ Yes ☐ No

Existing Land Use

Land Use Type **Value** **Unit**

Housing | Multi-Family 40 DU

Housing | Multi-Family 40 DU

☐ Click here to add a single custom land use type (will be included in the above list)

Proposed Project Land Use

Land Use Type **Value** **Unit**

Retail | High-Turnover Sit-Down Restaurant 2.653 ksf

Housing | Multi-Family 181 DU

Housing | Affordable Housing - Family 28 DU

Retail | High-Turnover Sit-Down Restaurant 2.653 ksf

☐ Click here to add a single custom land use type (will be included in the above list)

Project Screening Summary

Existing Land Use	Proposed
169 Daily Vehicle Trips	1,035 Daily Vehicle Trips
1,078 Daily VMT	6,803 Daily VMT
Tier 1 Screening Criteria	
Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station. <input type="checkbox"/>	
Tier 2 Screening Criteria	
The net increase in daily trips < 250 trips	866 Net Daily Trips
The net increase in daily VMT ≤ 0	5,725 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	2.653 ksf
The proposed project is required to perform VMT analysis.	

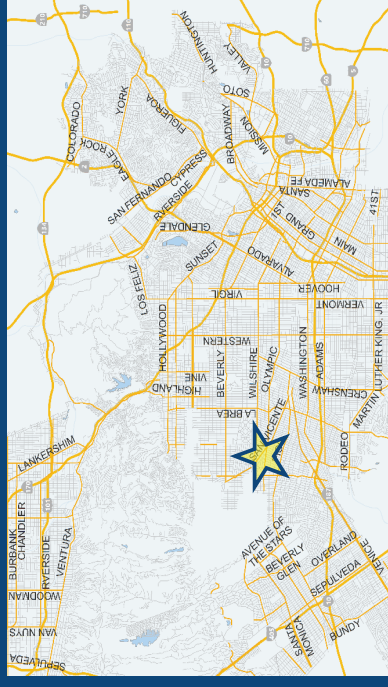


CITY OF LOS ANGELES VMT CALCULATOR Version 1.3



Project Information

Project: 800 S. Fairfax Avenue
Scenario: December 2020 supplemental update
Address: 800 S FAIRFAX AVE, 90036



Proposed Project Land Use Type	Value	Unit
Housing Multi-Family	181	DU
Housing Affordable Housing - Family	28	DU
Retail High-Turnover Sit-Down Restaurant	2,653	ksf

TDM Strategies

Select each section to show individual strategies
Use ☒ to denote if the TDM strategy is part of the proposed project or is a mitigation strategy

Max Home Based TDM Achieved? Proposed Project **No** With Mitigation **No**
Max Work Based TDM Achieved? **No** **No**

A	Parking	
B	Transit	
C	Education & Encouragement	
D	Commute Trip Reductions	
E	Shared Mobility	
F	Bicycle Infrastructure	
Implement/Improve On-street Bicycle Facility		Select Proposed Prj or Mitigation to include this strategy
<input type="checkbox"/> Proposed Prj <input type="checkbox"/> Mitigation		
Include Bike Parking Per LAMC		Select Proposed Prj or Mitigation to include this strategy
<input checked="" type="checkbox"/> Proposed Prj <input type="checkbox"/> Mitigation		
Include Secure Bike Parking and Showers		Select Proposed Prj or Mitigation to include this strategy
<input type="checkbox"/> Proposed Prj <input type="checkbox"/> Mitigation		
G	Neighborhood Enhancement	

Analysis Results

Proposed Project	With
930 Daily Vehicle Trips	930 Daily Vehicle Trips
6,109 Daily VMT	6,109 Daily VMT
4.4 Household VMT per Capita	4.4 Household VMT
N/A Work VMT per Employee	N/A Work VMT per Employee
Significant VMT Impact?	
Household: No Threshold = 6.0 15% Below APC	Household: No Threshold = 6.0 15% Below APC
Work: N/A Threshold = 7.6 15% Below APC	Work: N/A Threshold = 7.6 15% Below APC



CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: December 9, 2020
Project Name: 800 S. Fairfax Avenue
Project Scenario: December 2020 supplemental update
Project Address: 800 S FAIRFAX AVE, 90036



Version 1.3

Project Information		
Land Use Type	Value	Units
Housing	Single Family	0 DU
	Multi Family	181 DU
	Townhouse	0 DU
	Hotel	0 Rooms
	Motel	0 Rooms
Affordable Housing	Family	28 DU
	Senior	0 DU
	Special Needs	0 DU
	Permanent Supportive	0 DU
	General Retail	0.000 ksf
Retail	Furniture Store	0.000 ksf
	Pharmacy/Drugstore	0.000 ksf
	Supermarket	0.000 ksf
	Bank	0.000 ksf
	Health Club	0.000 ksf
	High-Turnover Sit-Down Restaurant	2.653 ksf
	Fast-Food Restaurant	0.000 ksf
	Quality Restaurant	0.000 ksf
	Auto Repair	0.000 ksf
	Home Improvement	0.000 ksf
Office	Free-Standing Discount	0.000 ksf
	Movie Theater	0 Seats
Industrial	General Office	0.000 ksf
	Medical Office	0.000 ksf
School	Light Industrial	0.000 ksf
	Manufacturing	0.000 ksf
Other	Warehousing/Self-Storage	0.000 ksf
	University	0 Students
	High School	0 Students
	Middle School	0 Students
	Elementary	0 Students
	Private School (K-12)	0 Students
Project and Analysis Overview		0 Trips

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: December 9, 2020

Project Name: 800 S. Fairfax Avenue

Project Scenario: December 2020 supplemental update

Project Address: 800 S FAIRFAX AVE, 90036



Version 1.3

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CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: December 9, 2020

Project Name: 800 S. Fairfax Avenue

Project Scenario: December 2020 supplemental update

Project Address: 800 S FAIRFAX AVE, 90036



Version 1.3

Analysis Results			
Total Employees: 11			
Total Population: 496			
Proposed Project		With Mitigation	
930	Daily Vehicle Trips	930	Daily Vehicle Trips
6,109	Daily VMT	6,109	Daily VMT
4.4	Household VMT per Capita	4.4	Household VMT per Capita
N/A	Work VMT per Employee	N/A	Work VMT per Employee
Significant VMT Impact?			
APC: Central			
Impact Threshold: 15% Below APC Average			
Household = 6.0			
Work = 7.6			
Proposed Project		With Mitigation	
VMT Threshold	Impact	VMT Threshold	Impact
Household > 6.0	No	Household > 6.0	No
Work > 7.6	N/A	Work > 7.6	N/A

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: December 9, 2020
Project Name: 800 S. Fairfax Avenue
Project Scenario: December 2020 supplemental update
Project Address: 800 S FAIRFAX AVE, 90036



Version 1.3

TDM Strategy Inputs			
Strategy Type	Description	Proposed Project	Mitigations
Parking	City code parking provision (spaces)	296	296
	Actual parking provision (spaces)	239	239
	Monthly cost for parking (\$)	\$0	\$0
	Employees eligible (%)	0%	0%
	Daily parking charge (\$)	\$0.00	\$0.00
	Employees subject to priced parking (%)	0%	0%
	Cost of annual permit (\$)	\$0	\$0
	Residential area parking permits		
(cont. on following page)			

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: December 9, 2020
 Project Name: 800 S. Fairfax Avenue
 Project Scenario: December 2020 supplemental update
 Project Address: 800 S FAIRFAX AVE, 90036



Version 1.3

TDM Strategy Inputs, Cont.			
Strategy Type	Description	Proposed Project	Mitigations
Transit	Reduce transit headways	0%	0%
	Existing transit mode share (as a percent of total daily trips) (%)	0%	0%
	Lines within project site improved (<50%, >=50%)	0	0
	Degree of implementation (low, medium, high)	0	0
	Employees and residents eligible (%)	0%	0%
Transit subsidies	Employees and residents eligible (%)	0%	0%
	Amount of transit subsidy per passenger (daily equivalent) (\$)	\$0.00	\$0.00
	Employees and residents participating (%)	0%	0%
Education & Encouragement	Voluntary travel behavior change program	0%	0%
	Promotions and marketing	0%	0%
(cont. on following page)			

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: December 9, 2020
 Project Name: 800 S. Fairfax Avenue
 Project Scenario: December 2020 supplemental update
 Project Address: 800 S FAIRFAX AVE, 90036



Version 1.3

TDM Strategy Inputs, Cont.			
Strategy Type	Description	Proposed Project	Mitigations
Commute Trip Reductions	Required commute trip reduction program	0%	0%
	Alternative Work Schedules and Telecommute	0%	0%
	Type of program	0	0
	Degree of implementation (low, medium, high)	0	0
	Employees participating (%)	0%	0%
Shared Mobility	Employer sponsored vanpool or shuttle	0%	0%
	Employer size (small, medium, large)	0	0
	Employees eligible (%)	0%	0%
Car share	Car share project setting (Urban, Suburban, All Other)	0	0
Bike share	Within 600 feet of existing bike share station - OR- implementing new bike share station (Yes/No)	0	0
School carpool program	Level of implementation (Low, Medium, High)	0	0
(cont. on following page)			

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: December 9, 2020
 Project Name: 800 S. Fairfax Avenue
 Project Scenario: December 2020 supplemental update
 Project Address: 800 S FAIRFAX AVE, 90036



Version 1.3

TDM Strategy Inputs, Cont.			
Strategy Type	Description	Proposed Project	Mitigations
Bicycle Infrastructure	Implement/Improve on-street bicycle facility	0	0
	Include Bike parking per LAMC	Yes	Yes
	Include secure bike parking and showers	0	0
Neighborhood Enhancement	Traffic calming improvements	0%	0%
	Pedestrian network improvements	0	0

CITY OF LOS ANGELES VMT CALCULATOR

Report 3: TDM Outputs

Date: December 9, 2020
 Project Name: 800 S. Fairfax Avenue
 Project Scenario: December 2020 supplemental update
 Project Address: 800 S FAIRFAX AVE, 90036



Version 1.3

TDM Adjustments by Trip Purpose & Strategy													
Place type: Compact Infill													
	Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction		Source
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Parking	Reduce parking supply	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	TDM Strategy Appendix, Parking sections 1 - 5
	Unbundle parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Parking cash-out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Price workplace parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Residential area parking permits	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Transit	Reduce transit headways	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Transit sections 1 - 3
	Implement neighborhood shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Transit subsidies	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Voluntary travel behavior change program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Education & Encouragement	Promotions and marketing	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Education & Encouragement sections 1 - 2
	Required commute trip reduction program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Alternative Work Schedules and Telecommute Program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Commute Trip Reductions	Employer sponsored vanpool or shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Commute Trip Reductions sections 1 - 4
	Ride-share program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Car-share	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
	Bike share	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Shared Mobility	School carpool program	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Shared Mobility sections 1 - 3

CITY OF LOS ANGELES VMT CALCULATOR

Report 3: TDM Outputs

Date: December 9, 2020
 Project Name: 800 S. Fairfax Avenue
 Project Scenario: December 2020 supplemental update
 Project Address: 800 S FAIRFAX AVE, 90036



Version 1.3

TDM Adjustments by Trip Purpose & Strategy, Cont.

Place type: Compact Infill

	Home Based Work				Home Based Other				Home Based Other				Non-Home Based Other				Source
	Production		Attraction		Production		Attraction		Production		Attraction		Production		Attraction		
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Bicycle Infrastructure	Implement/ Improve on-street bicycle facility	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Bicycle Infrastructure sections 1 - 3
	Include Bike parking per LAMC	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
	Include secure bike parking and showers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Neighborhood Enhancement	Traffic calming improvements	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Neighborhood Enhancement
	Pedestrian network improvements	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Final Combined & Maximum TDM Effect

	Home Based Work				Home Based Other				Home Based Other				Non-Home Based Other			
	Production		Attraction		Production		Attraction		Production		Attraction		Production		Attraction	
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated
COMBINED TOTAL	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
MAX. TDM EFFECT	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%

$$= \text{Minimum } (X\%, 1 - [(1-A) * (1-B)...])$$

where X%=

PLACE	urban	75%
TYPE	compact infill	40%
MAX:	suburban center	20%
	suburban	15%

NOTE: $(1 - [(1-A) * (1-B)...])$ reflects the dampened combined effectiveness of TDM Strategies (e.g., A, B,...). See the TDM Strategy Appendix (*Transportation Assessment Guidelines Attachment G*) for further discussion of dampening.

CITY OF LOS ANGELES VMT CALCULATOR

Report 4: MXD Methodology

Date: December 9, 2020

Project Name: 800 S. Fairfax Avenue

Project Scenario: December 2020 supplemental update

Project Address: 800 S FAIRFAX AVE, 90036



Version 1.3

MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	186	-18.3%	152	6.2	1,153	942
Home Based Other Production	515	-40.8%	305	4.9	2,524	1,495
Non-Home Based Other Production	289	-5.9%	272	7.6	2,196	2,067
Home-Based Work Attraction	15	-53.3%	7	8.0	120	56
Home-Based Other Attraction	358	-44.4%	199	7.3	2,613	1,453
Non-Home Based Other Attraction	107	-6.5%	100	7.9	845	790

MXD Methodology with TDM Measures

	Proposed Project			Project with Mitigation Measures		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	-10.2%	137	846	-10.2%	137	846
Home Based Other Production	-10.2%	274	1,343	-10.2%	274	1,343
Non-Home Based Other Production	-10.2%	244	1,856	-10.2%	244	1,856
Home-Based Work Attraction	-10.2%	6	50	-10.2%	6	50
Home-Based Other Attraction	-10.2%	179	1,305	-10.2%	179	1,305
Non-Home Based Other Attraction	-10.2%	90	709	-10.2%	90	709

MXD VMT Methodology Per Capita & Per Employee

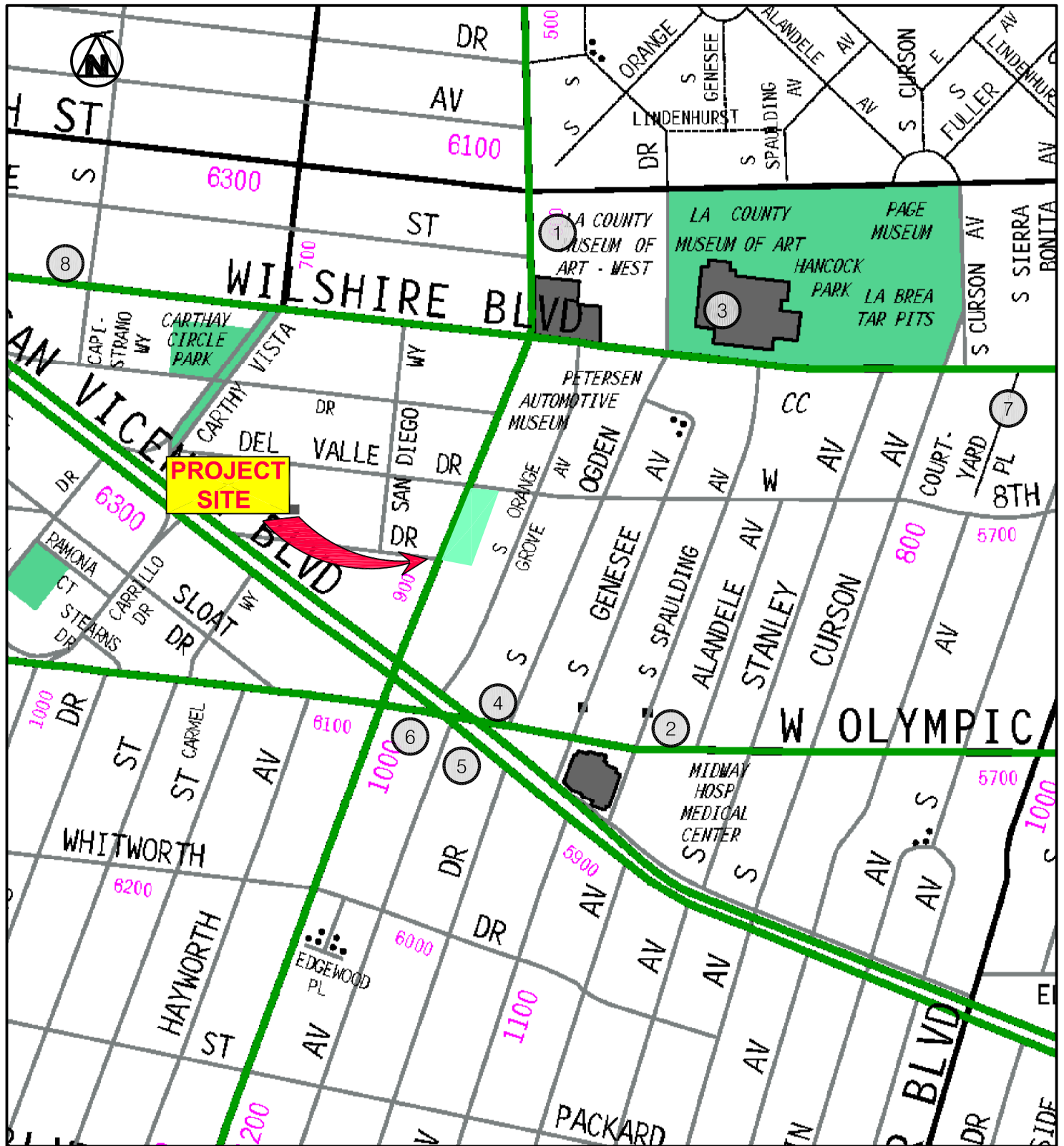
Total Population: 496

Total Employees: 11

APC: Central

	Proposed Project	Project with Mitigation Measures
Total Home Based Production VMT	2,189	2,189
Total Home Based Work Attraction VMT	50	50
Total Home Based VMT Per Capita	4.4	4.4
Total Work Based VMT Per Employee	N/A	N/A

ATTACHMENT D
RELATED PROJECT INFORMATION



12/2020

RELATED PROJECTS LOCATION MAP



Overland Traffic Consultants, Inc.

952 Manhattan Beach Bl. #100, Manhattan Beach, CA 90266
(661) 799 - 8423, otc@overlandtraffic.com

RELATED PROJECT LIST
830 Fairfax Avenue

RELATED PROJECT TRAFFIC GENERATION

No.	Project	Use	Size	Location	Daily Traffic	AM Peak Hour			PM Peak Hour		
						In	Out	Total	In	Out	Total
1	Academy Musuem of Motion Pictures	visitors	5,000	6067 Wilshire Boulevard	2,763	251	176	428	61	263	324
		employees	135								
		store	3,000 sf								
		restaurant	6,000 sf								
2	Residential	apartments	48 Units	5891 Olympic Boulevard	326	4	14	18	13	8	21
3	LACMA Renovations	museum	less 24,571 sf	5905 Wilshire Boulevard	668	43	2	45	15	53	68
4	Mixed - Use	apartments	51 Units	6001 Olympic Boulevard	99	6	13	19	5	-2	3
		affordable	6 Units								
		restaurant	1,596 sf								
5	Acute Care	hospital	47,036 sf	6000 San Vicente Boulevard	392	14	7	21	8	15	23
6	Mixed-Use	apartments	108 Units	6052-66 Olympic Boulevard							
		affordable	12 Units								
		restaurant	3,152 sf								
7	Mixed-Use	added office	1,250,885 sf	5700 Wilshire Boulevard	1,586	104	18	122	37	119	156
8	Mixed-Use	added commercial	86,677 sf	(assume 10% year 2024)	691	11	29	40	33	26	59
		apartments	112 Units	6401 Wilshire Boulevard							
		commercial	5,110 sf								

ATTACHMENT E
CAPACITY WORKSHEETS

DRIVEWAY LOS WORKSHEETS

HCS7 Two-Way Stop-Control Report

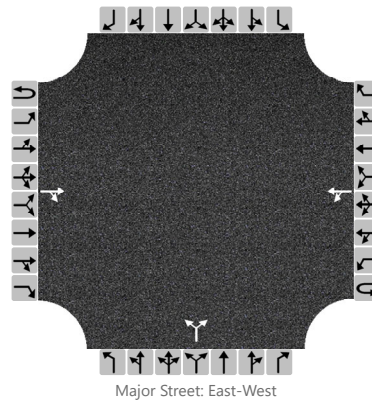
General Information

Analyst	jto
Agency/Co.	otc
Date Performed	12/2020
Analysis Year	2024
Time Analyzed	am peak hour future
Intersection Orientation	East-West
Project Description	830 Fairfax

Site Information

Intersection	8th Street driveway
Jurisdiction	la
East/West Street	8th Street
North/South Street	8th Street driveway
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume, V (veh/h)			492	10		4	193			21		4				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.1		6.2				
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						4					27					
Capacity, c (veh/h)						1017					391					
v/c Ratio						0.00					0.07					
95% Queue Length, Q ₉₅ (veh)						0.0					0.2					
Control Delay (s/veh)						8.6					14.9					
Level of Service, LOS						A					B					
Approach Delay (s/veh)					0.2				14.9							
Approach LOS									B							

HCS7 Two-Way Stop-Control Report

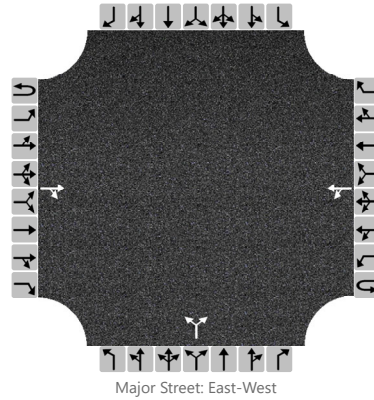
General Information

Analyst	jto
Agency/Co.	otc
Date Performed	12/2020
Analysis Year	2024
Time Analyzed	pm peak hour future
Intersection Orientation	East-West
Project Description	830 Fairfax

Site Information

Intersection	8th Street driveway
Jurisdiction	la
East/West Street	8th Street
North/South Street	8th Street driveway
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume, V (veh/h)			622	18		8	213			14		3				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

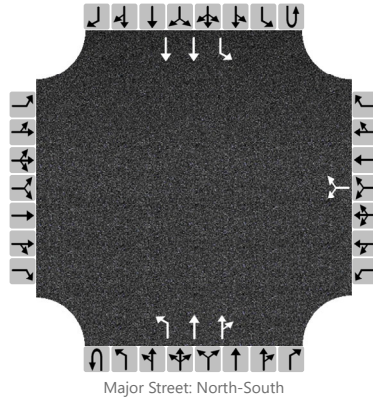
Flow Rate, v (veh/h)						9					18					
Capacity, c (veh/h)						894					309					
v/c Ratio						0.01					0.06					
95% Queue Length, Q ₉₅ (veh)						0.0					0.2					
Control Delay (s/veh)						9.1					17.4					
Level of Service, LOS						A					C					
Approach Delay (s/veh)					0.4				17.4							
Approach LOS									C							

HCS7 Two-Way Stop-Control Report

General Information

Analyst	jto	Intersection	Fairfax Avenue driveway
Agency/Co.	otc	Jurisdiction	la
Date Performed	12/2020	East/West Street	Fairfax Driveway
Analysis Year	2024	North/South Street	Fairfax Avenue
Time Analyzed	am peak hour future	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	830 Fairfax		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	1	2	0	0	1	2	0
Configuration							LR			L	T	TR		L	T	
Volume, V (veh/h)						11		11		0	912	13		0	1307	
Percent Heavy Vehicles (%)						3		3		3				3		
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized	No				No				No				No			
Median Type/Storage					Left Only								1			

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

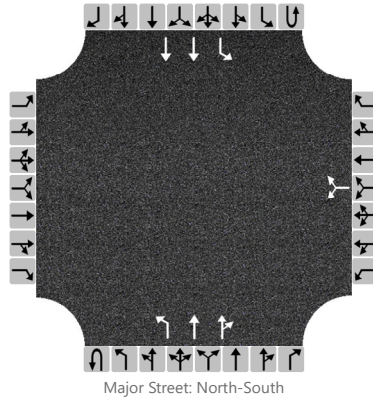
Flow Rate, v (veh/h)							24				0				0	
Capacity, c (veh/h)							292				470				679	
v/c Ratio							0.08				0.00				0.00	
95% Queue Length, Q ₉₅ (veh)							0.3				0.0				0.0	
Control Delay (s/veh)							18.4				12.7				10.3	
Level of Service, LOS							C				B				B	
Approach Delay (s/veh)					18.4				0.0				0.0			
Approach LOS					C											

HCS7 Two-Way Stop-Control Report

General Information

Analyst	jto	Intersection	Fairfax Avenue driveway
Agency/Co.	otc	Jurisdiction	la
Date Performed	12/2020	East/West Street	Fairfax Driveway
Analysis Year	2024	North/South Street	Fairfax Avenue
Time Analyzed	pm peak hour future	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	830 Fairfax		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	1	2	0	0	1	2	0
Configuration							LR			L	T	TR		L	T	
Volume, V (veh/h)						7		7		0	821	22		0	1426	
Percent Heavy Vehicles (%)						3		3		3				3		
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized	No				No				No				No			
Median Type/Storage					Left Only								1			

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							15				0				0	
Capacity, c (veh/h)							306				419				734	
v/c Ratio							0.05				0.00				0.00	
95% Queue Length, Q ₉₅ (veh)							0.2				0.0				0.0	
Control Delay (s/veh)							17.4				13.6				9.9	
Level of Service, LOS							C				B				A	
Approach Delay (s/veh)					17.4				0.0				0.0			
Approach LOS					C											

INTERSECTION LOS WORKSHEETS

























EXISTING HCS WORKSHEETS

EXISTING AM PEAK HOUR

HCM 6th Signalized Intersection Summary

2: Wilshire Bd




















12/07/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	568	77	90	1278	171	174	731	44	93	1039	269
Future Volume (veh/h)	88	568	77	90	1278	171	174	731	44	93	1039	269
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.88	0.97		0.88	1.00		0.93	1.00		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	96	617	84	98	1389	186	189	795	48	101	1129	292
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	226	998	392	321	999	393	252	1019	62	129	1050	534
Arrive On Green	0.06	0.28	0.28	0.06	0.28	0.28	0.08	0.30	0.30	0.07	0.30	0.30
Sat Flow, veh/h	1781	3554	1397	1781	3554	1396	1781	3387	204	1781	3554	1463
Grp Volume(v), veh/h	96	617	84	98	1389	186	189	417	426	101	1129	292
Grp Sat Flow(s),veh/h/ln	1781	1777	1397	1781	1777	1396	1781	1777	1814	1781	1777	1463
Q Serve(g_s), s	2.4	9.7	2.9	2.4	18.0	7.1	4.8	13.7	13.7	3.6	18.9	10.2
Cycle Q Clear(g_c), s	2.4	9.7	2.9	2.4	18.0	7.1	4.8	13.7	13.7	3.6	18.9	10.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	226	998	392	321	999	393	252	535	546	129	1050	534
V/C Ratio(X)	0.42	0.62	0.21	0.31	1.39	0.47	0.75	0.78	0.78	0.78	1.08	0.55
Avail Cap(c_a), veh/h	252	999	393	346	999	393	252	535	546	139	1050	534
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.0	20.0	17.6	15.4	23.0	19.1	16.8	20.4	20.4	29.2	22.5	16.4
Incr Delay (d2), s/veh	1.3	1.2	0.3	0.5	181.6	0.9	11.0	10.0	9.8	23.0	50.4	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	3.9	0.9	1.0	32.1	2.2	2.5	6.7	6.8	2.3	14.5	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.3	21.2	17.9	15.9	204.6	20.0	27.9	30.4	30.2	52.2	72.9	20.4
LnGrp LOS	B	C	B	B	F	B	C	C	C	D	F	C
Approach Vol, veh/h		797			1673			1032			1522	
Approach Delay, s/veh		20.5			173.0			29.9			61.5	
Approach LOS		C			F			C			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	23.8	8.6	22.5	9.5	23.4	8.6	22.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	5.6	15.7	4.4	11.7	6.8	20.9	4.4	20.0				
Green Ext Time (p_c), s	0.0	1.2	0.0	2.4	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			85.6									
HCM 6th LOS			F									
Notes												
User approved changes to right turn type.												

HCM Signalized Intersection Capacity Analysis

3: Del Valle Dr/8th St













12/07/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	16	0	210	0	252	0	706	93	62	986	0
Future Volume (vph)	20	16	0	210	0	252	0	706	93	62	986	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5	4.5		4.5		4.5	4.5	
Lane Util. Factor		1.00		0.95	0.91	0.95		0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	0.99	0.98		1.00		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00		1.00		0.99	1.00	
Frt		1.00		1.00	0.90	0.85		0.98		1.00	1.00	
Flt Protected		0.97		0.95	0.98	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		1809		1681	1482	1478		3477		1752	3539	
Flt Permitted		0.80		0.73	0.89	1.00		1.00		0.30	1.00	
Satd. Flow (perm)		1485		1295	1335	1478		3477		549	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	17	0	228	0	274	0	767	101	67	1072	0
RTOR Reduction (vph)	0	0	0	0	65	65	0	17	0	0	0	0
Lane Group Flow (vph)	0	39	0	173	102	97	0	851	0	67	1072	0
Confl. Peds. (#/hr)	5					5				28		6
Confl. Bikes (#/hr)						2						6
Turn Type	Perm	NA		Perm	NA	Perm		NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8				6		
Actuated Green, G (s)		10.8		10.8	10.8	10.8		25.2		25.2	25.2	
Effective Green, g (s)		10.8		10.8	10.8	10.8		25.2		25.2	25.2	
Actuated g/C Ratio		0.24		0.24	0.24	0.24		0.56		0.56	0.56	
Clearance Time (s)		4.5		4.5	4.5	4.5		4.5		4.5	4.5	
Vehicle Extension (s)		3.0		3.0	3.0	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)		356		310	320	354		1947		307	1981	
v/s Ratio Prot								0.24			c0.30	
v/s Ratio Perm		0.03		c0.13	0.08	0.07				0.12		
v/c Ratio		0.11		0.56	0.32	0.28		0.44		0.22	0.54	
Uniform Delay, d1		13.3		15.0	14.1	13.9		5.8		5.0	6.2	
Progression Factor		1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		0.1		2.2	0.6	0.4		0.7		1.6	1.1	
Delay (s)		13.5		17.2	14.7	14.3		6.5		6.6	7.3	
Level of Service		B		B	B	B		A		A	A	
Approach Delay (s)		13.5			15.4			6.5			7.3	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM 2000 Control Delay		8.7										
HCM 2000 Volume to Capacity ratio		0.55										
Actuated Cycle Length (s)		45.0										
Intersection Capacity Utilization		50.0%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Signalized Intersection Summary

4: San Vicente Bd




















12/07/2020

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑		↵	↑↑	↵	↵	↑↑↑	↵		↑↑↑	↵
Traffic Volume (veh/h)	0	638	0	93	967	104	27	559	61	0	1432	71
Future Volume (veh/h)	0	638	0	93	967	104	27	559	61	0	1432	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	0	1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	693	0	101	1051	113	29	608	66	0	1557	77
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	0	2	2	2	2	2	2	0	2	2
Cap, veh/h	0	1382	0	128	1797	777	116	2602	641	0	2065	628
Arrive On Green	0.00	0.78	0.00	0.07	0.51	0.51	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	3741	0	1781	3554	1538	307	6434	1585	0	5274	1553
Grp Volume(v), veh/h	0	693	0	101	1051	113	29	608	66	0	1557	77
Grp Sat Flow(s),veh/h/ln	0	1777	0	1781	1777	1538	307	1609	1585	0	1702	1553
Q Serve(g_s), s	0.0	7.1	0.0	5.6	20.8	3.9	8.9	6.2	2.6	0.0	26.1	3.1
Cycle Q Clear(g_c), s	0.0	7.1	0.0	5.6	20.8	3.9	35.1	6.2	2.6	0.0	26.1	3.1
Prop In Lane	0.00		0.00	1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	0	1382	0	128	1797	777	116	2602	641	0	2065	628
V/C Ratio(X)	0.00	0.50	0.00	0.79	0.58	0.15	0.25	0.23	0.10	0.00	0.75	0.12
Avail Cap(c_a), veh/h	0	1382	0	187	1797	777	135	2992	737	0	2374	722
HCM Platoon Ratio	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.81	0.00	0.85	0.85	0.85	1.00	1.00	1.00	0.00	0.84	0.84
Uniform Delay (d), s/veh	0.0	7.6	0.0	45.7	17.4	13.2	40.5	19.6	18.5	0.0	25.5	18.7
Incr Delay (d2), s/veh	0.0	1.1	0.0	11.3	1.2	0.3	1.1	0.0	0.1	0.0	1.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.1	0.0	2.9	8.4	1.4	0.7	2.3	1.0	0.0	10.4	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	8.6	0.0	56.9	18.5	13.5	41.7	19.6	18.6	0.0	26.5	18.7
LnGrp LOS	A	A	A	E	B	B	D	B	B	A	C	B
Approach Vol, veh/h		693			1265			703			1634	
Approach Delay, s/veh		8.6			21.2			20.4			26.2	
Approach LOS		A			C			C			C	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	11.7	43.4		44.9		55.1		44.9				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	10.5	29.0		46.5		44.0		46.5				
Max Q Clear Time (g_c+I1), s	7.6	9.1		37.1		22.8		28.1				
Green Ext Time (p_c), s	0.1	4.8		3.4		8.4		11.3				
Intersection Summary												
HCM 6th Ctrl Delay				20.9								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary













5: Fairfax Ave & Olympic Ave

12/07/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	813	20	37	1501	4	70	534	26	0	708	335
Future Volume (veh/h)	94	813	20	37	1501	4	70	534	26	0	708	335
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.95	1.00		0.93	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	102	884	22	40	1632	4	76	580	28	0	770	364
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	0	2	2
Cap, veh/h	159	2584	64	318	2656	7	89	1392	67	0	717	338
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.05	0.41	0.41	0.00	0.62	0.62
Sat Flow, veh/h	307	5117	127	613	5258	13	1781	3438	166	0	2405	1090
Grp Volume(v), veh/h	102	588	318	40	1056	580	76	299	309	0	591	543
Grp Sat Flow(s),veh/h/ln	307	1702	1840	613	1702	1867	1781	1777	1827	0	1777	1625
Q Serve(g_s), s	28.2	10.3	10.4	4.2	22.3	22.3	4.2	12.1	12.1	0.0	31.0	31.0
Cycle Q Clear(g_c), s	50.5	10.3	10.4	14.5	22.3	22.3	4.2	12.1	12.1	0.0	31.0	31.0
Prop In Lane	1.00		0.07	1.00		0.01	1.00		0.09	0.00		0.67
Lane Grp Cap(c), veh/h	159	1719	929	318	1719	943	89	720	740	0	551	504
V/C Ratio(X)	0.64	0.34	0.34	0.13	0.61	0.61	0.85	0.42	0.42	0.00	1.07	1.08
Avail Cap(c_a), veh/h	159	1719	929	318	1719	943	89	720	740	0	551	504
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	0.44	0.44	0.44	1.00	1.00	1.00	0.00	0.77	0.77
Uniform Delay (d), s/veh	38.0	14.8	14.8	19.2	17.8	17.8	47.1	21.3	21.3	0.0	19.0	19.0
Incr Delay (d2), s/veh	8.5	0.1	0.2	0.1	0.3	0.5	51.0	1.8	1.7	0.0	55.1	57.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	3.9	4.2	0.6	8.4	9.2	3.1	5.3	5.4	0.0	15.3	14.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.6	14.9	15.0	19.2	18.1	18.3	98.2	23.1	23.0	0.0	74.1	76.9
LnGrp LOS	D	B	B	B	B	B	F	C	C	A	F	F
Approach Vol, veh/h		1008			1676			684			1134	
Approach Delay, s/veh		18.2			18.2			31.4			75.4	
Approach LOS		B			B			C			E	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		45.0		55.0	9.5	35.5		55.0				
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		40.0		50.5	5.0	30.5		50.5				
Max Q Clear Time (g_c+I1), s		14.1		52.5	6.2	33.0		24.3				
Green Ext Time (p_c), s		3.9		0.0	0.0	0.0		14.2				
Intersection Summary												
HCM 6th Ctrl Delay				34.6								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
17: San Vicente Bd

12/07/2020

























												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑↑			↑↑↑			↑↑↑		↑	↑↑↑	
Traffic Volume (veh/h)	0	762	148	0	1280	491	0	679	0	195	1070	3
Future Volume (veh/h)	0	762	148	0	1280	491	0	679	0	195	1070	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870	0	1870	0	1870	1870	1870
Adj Flow Rate, veh/h	0	828	161	0	1391	534	0	738	0	212	1163	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2	0	2	0	2	2	2
Cap, veh/h	0	1912	369	0	1623	615	0	1793	0	247	2432	6
Arrive On Green	0.00	0.45	0.45	0.00	0.45	0.45	0.00	0.28	0.00	0.14	0.46	0.46
Sat Flow, veh/h	0	4440	824	0	3796	1373	0	6958	0	1781	5258	14
Grp Volume(v), veh/h	0	658	331	0	1304	621	0	738	0	212	753	413
Grp Sat Flow(s),veh/h/ln	0	1702	1692	0	1702	1597	0	1609	0	1781	1702	1868
Q Serve(g_s), s	0.0	13.3	13.4	0.0	34.3	35.2	0.0	9.3	0.0	11.6	15.3	15.3
Cycle Q Clear(g_c), s	0.0	13.3	13.4	0.0	34.3	35.2	0.0	9.3	0.0	11.6	15.3	15.3
Prop In Lane	0.00		0.49	0.00		0.86	0.00		0.00	1.00		0.01
Lane Grp Cap(c), veh/h	0	1523	757	0	1523	715	0	1793	0	247	1574	864
V/C Ratio(X)	0.00	0.43	0.44	0.00	0.86	0.87	0.00	0.41	0.00	0.86	0.48	0.48
Avail Cap(c_a), veh/h	0	1583	787	0	1583	743	0	1793	0	347	1574	864
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.94	0.94	0.00	1.00	1.00	0.00	0.97	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	18.9	19.0	0.0	24.7	25.0	0.0	29.4	0.0	42.1	18.5	18.5
Incr Delay (d2), s/veh	0.0	0.2	0.4	0.0	4.7	10.5	0.0	0.7	0.0	14.0	1.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.1	5.2	0.0	14.2	14.8	0.0	3.7	0.0	6.0	6.1	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	19.1	19.3	0.0	29.5	35.5	0.0	30.1	0.0	56.0	19.6	20.4
LnGrp LOS	A	B	B	A	C	D	A	C	A	E	B	C
Approach Vol, veh/h		989			1925			738			1378	
Approach Delay, s/veh		19.2			31.4			30.1			25.5	
Approach LOS		B			C			C			C	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		50.8		49.2	18.4	32.4		49.2				
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		44.0		46.5	19.5	20.0		46.5				
Max Q Clear Time (g_c+I1), s		17.3		15.4	13.6	11.3		37.2				
Green Ext Time (p_c), s		9.1		7.9	0.3	3.3		7.6				
Intersection Summary												
HCM 6th Ctrl Delay			27.2									
HCM 6th LOS			C									

EXISTING + PROJECT AM PEAK HOUR

HCM 6th Signalized Intersection Summary

2: Wilshire Bd





















12/07/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	568	82	90	1278	171	183	741	48	93	1044	269
Future Volume (veh/h)	88	568	82	90	1278	171	183	741	48	93	1044	269
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.88	0.97		0.88	1.00		0.93	1.00		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	96	617	89	98	1389	186	199	805	52	101	1135	292
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	226	998	392	321	999	393	252	1014	66	129	1050	534
Arrive On Green	0.06	0.28	0.28	0.06	0.28	0.28	0.08	0.30	0.30	0.07	0.30	0.30
Sat Flow, veh/h	1781	3554	1397	1781	3554	1396	1781	3370	218	1781	3554	1463
Grp Volume(v), veh/h	96	617	89	98	1389	186	199	424	433	101	1135	292
Grp Sat Flow(s),veh/h/ln	1781	1777	1397	1781	1777	1396	1781	1777	1811	1781	1777	1463
Q Serve(g_s), s	2.4	9.7	3.1	2.4	18.0	7.1	5.0	14.0	14.0	3.6	18.9	10.2
Cycle Q Clear(g_c), s	2.4	9.7	3.1	2.4	18.0	7.1	5.0	14.0	14.0	3.6	18.9	10.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	226	998	392	321	999	393	252	535	545	129	1050	534
V/C Ratio(X)	0.42	0.62	0.23	0.31	1.39	0.47	0.79	0.79	0.79	0.78	1.08	0.55
Avail Cap(c_a), veh/h	252	999	393	345	999	393	252	535	545	139	1050	534
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.0	20.0	17.7	15.4	23.0	19.1	17.0	20.5	20.5	29.2	22.5	16.4
Incr Delay (d2), s/veh	1.3	1.2	0.3	0.5	181.6	0.9	14.5	10.7	10.5	23.0	52.4	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	3.9	1.0	1.0	32.1	2.2	2.8	6.9	7.0	2.3	14.8	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.3	21.2	18.0	15.9	204.6	20.0	31.5	31.2	31.1	52.2	75.0	20.4
LnGrp LOS	B	C	B	B	F	B	C	C	C	D	F	C
Approach Vol, veh/h		802			1673			1056			1528	
Approach Delay, s/veh		20.5			173.0			31.2			63.0	
Approach LOS		C			F			C			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	23.8	8.6	22.5	9.5	23.4	8.6	22.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	5.6	16.0	4.4	11.7	7.0	20.9	4.4	20.0				
Green Ext Time (p_c), s	0.0	1.0	0.0	2.4	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			86.0									
HCM 6th LOS			F									
Notes												
User approved changes to right turn type.												

HCM Signalized Intersection Capacity Analysis

3: Del Valle Dr/8th St













12/07/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	16	0	221	0	263	0	717	93	72	986	0
Future Volume (vph)	20	16	0	221	0	263	0	717	93	72	986	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5	4.5		4.5		4.5	4.5	
Lane Util. Factor		1.00		0.95	0.91	0.95		0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	0.99	0.98		1.00		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00		1.00		0.99	1.00	
Frt		1.00		1.00	0.90	0.85		0.98		1.00	1.00	
Flt Protected		0.97		0.95	0.98	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		1809		1681	1483	1478		3478		1753	3539	
Flt Permitted		0.81		0.73	0.89	1.00		1.00		0.28	1.00	
Satd. Flow (perm)		1506		1295	1343	1478		3478		523	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	17	0	240	0	286	0	779	101	78	1072	0
RTOR Reduction (vph)	0	0	0	0	60	60	0	18	0	0	0	0
Lane Group Flow (vph)	0	39	0	182	115	109	0	862	0	78	1072	0
Confl. Peds. (#/hr)	5					5				28		6
Confl. Bikes (#/hr)						2						6
Turn Type	Perm	NA		Perm	NA	Perm		NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8				6		
Actuated Green, G (s)		12.3		12.3	12.3	12.3		23.7		23.7	23.7	
Effective Green, g (s)		12.3		12.3	12.3	12.3		23.7		23.7	23.7	
Actuated g/C Ratio		0.27		0.27	0.27	0.27		0.53		0.53	0.53	
Clearance Time (s)		4.5		4.5	4.5	4.5		4.5		4.5	4.5	
Vehicle Extension (s)		3.0		3.0	3.0	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)		411		353	367	403		1831		275	1863	
v/s Ratio Prot								0.25			c0.30	
v/s Ratio Perm		0.03		c0.14	0.09	0.07				0.15		
v/c Ratio		0.09		0.52	0.31	0.27		0.47		0.28	0.58	
Uniform Delay, d1		12.2		13.8	13.0	12.8		6.7		5.9	7.2	
Progression Factor		1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		0.1		1.3	0.5	0.4		0.9		2.6	1.3	
Delay (s)		12.3		15.1	13.5	13.2		7.6		8.5	8.5	
Level of Service		B		B	B	B		A		A	A	
Approach Delay (s)		12.3			14.0			7.6			8.5	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM 2000 Control Delay		9.4										
HCM 2000 Volume to Capacity ratio		0.55										
Actuated Cycle Length (s)		45.0										
Intersection Capacity Utilization		50.7%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Signalized Intersection Summary

4: San Vicente Bd


























12/07/2020

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑		↰	↑↑	↱	↰	↑↑↑	↱		↑↑↑	↱
Traffic Volume (veh/h)	0	646	0	100	980	104	27	559	61	0	1432	75
Future Volume (veh/h)	0	646	0	100	980	104	27	559	61	0	1432	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	0	1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	702	0	109	1065	113	29	608	66	0	1557	82
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	0	2	2	2	2	2	2	0	2	2
Cap, veh/h	0	1369	0	137	1802	780	115	2592	639	0	2057	626
Arrive On Green	0.00	0.77	0.00	0.08	0.51	0.51	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	3741	0	1781	3554	1538	306	6434	1585	0	5274	1553
Grp Volume(v), veh/h	0	702	0	109	1065	113	29	608	66	0	1557	82
Grp Sat Flow(s),veh/h/ln	0	1777	0	1781	1777	1538	306	1609	1585	0	1702	1553
Q Serve(g_s), s	0.0	7.5	0.0	6.0	21.1	3.9	9.0	6.2	2.6	0.0	26.2	3.3
Cycle Q Clear(g_c), s	0.0	7.5	0.0	6.0	21.1	3.9	35.2	6.2	2.6	0.0	26.2	3.3
Prop In Lane	0.00		0.00	1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	0	1369	0	137	1802	780	115	2592	639	0	2057	626
V/C Ratio(X)	0.00	0.51	0.00	0.80	0.59	0.14	0.25	0.23	0.10	0.00	0.76	0.13
Avail Cap(c_a), veh/h	0	1369	0	205	1802	780	131	2927	721	0	2323	706
HCM Platoon Ratio	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.81	0.00	0.80	0.80	0.80	1.00	1.00	1.00	0.00	0.85	0.85
Uniform Delay (d), s/veh	0.0	7.9	0.0	45.4	17.3	13.1	40.8	19.7	18.6	0.0	25.6	18.8
Incr Delay (d2), s/veh	0.0	1.1	0.0	9.8	1.1	0.3	1.1	0.0	0.1	0.0	1.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.2	0.0	3.0	8.5	1.4	0.7	2.3	1.0	0.0	10.4	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	9.0	0.0	55.2	18.5	13.4	41.9	19.7	18.7	0.0	26.8	18.9
LnGrp LOS	A	A	A	E	B	B	D	B	B	A	C	B
Approach Vol, veh/h		702			1287			703			1639	
Approach Delay, s/veh		9.0			21.2			20.5			26.4	
Approach LOS		A			C			C			C	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	12.2	43.0		44.8		55.2		44.8				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	11.5	29.0		45.5		45.0		45.5				
Max Q Clear Time (g_c+I1), s	8.0	9.5		37.2		23.1		28.2				
Green Ext Time (p_c), s	0.1	4.8		3.1		8.7		10.8				
Intersection Summary												
HCM 6th Ctrl Delay				21.1								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary













5: Fairfax Ave & Olympic Ave

12/07/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	98	813	20	37	1501	4	70	538	26	0	715	341
Future Volume (veh/h)	98	813	20	37	1501	4	70	538	26	0	715	341
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.95	1.00		0.93	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	107	884	22	40	1632	4	76	585	28	0	777	371
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	0	2	2
Cap, veh/h	163	2635	65	325	2708	7	89	1358	65	0	691	329
Arrive On Green	0.51	0.51	0.51	0.51	0.51	0.51	0.05	0.40	0.40	0.00	0.60	0.60
Sat Flow, veh/h	307	5117	127	613	5258	13	1781	3439	164	0	2397	1096
Grp Volume(v), veh/h	107	588	318	40	1056	580	76	302	311	0	599	549
Grp Sat Flow(s),veh/h/ln	307	1702	1840	613	1702	1867	1781	1777	1827	0	1777	1622
Q Serve(g_s), s	29.7	10.1	10.1	4.1	21.8	21.8	4.2	12.4	12.4	0.0	30.0	30.0
Cycle Q Clear(g_c), s	51.5	10.1	10.1	14.2	21.8	21.8	4.2	12.4	12.4	0.0	30.0	30.0
Prop In Lane	1.00		0.07	1.00		0.01	1.00		0.09	0.00		0.68
Lane Grp Cap(c), veh/h	163	1753	948	325	1753	962	89	702	722	0	533	487
V/C Ratio(X)	0.66	0.34	0.34	0.12	0.60	0.60	0.85	0.43	0.43	0.00	1.12	1.13
Avail Cap(c_a), veh/h	163	1753	948	325	1753	962	89	702	722	0	533	487
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	0.45	0.45	0.45	1.00	1.00	1.00	0.00	0.77	0.77
Uniform Delay (d), s/veh	37.4	14.2	14.2	18.4	17.1	17.1	47.1	22.0	22.1	0.0	20.0	20.0
Incr Delay (d2), s/veh	9.2	0.1	0.2	0.1	0.3	0.5	51.0	1.9	1.9	0.0	73.4	76.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	3.8	4.1	0.6	8.2	9.0	3.1	5.4	5.6	0.0	18.0	16.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.5	14.3	14.4	18.5	17.3	17.5	98.2	24.0	23.9	0.0	93.4	96.6
LnGrp LOS	D	B	B	B	B	B	F	C	C	A	F	F
Approach Vol, veh/h		1013			1676			689			1148	
Approach Delay, s/veh		17.8			17.4			32.1			94.9	
Approach LOS		B			B			C			F	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		44.0		56.0	9.5	34.5		56.0				
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		39.0		51.5	5.0	29.5		51.5				
Max Q Clear Time (g_c+I1), s		14.4		53.5	6.2	32.0		23.8				
Green Ext Time (p_c), s		3.9		0.0	0.0	0.0		14.7				
Intersection Summary												
HCM 6th Ctrl Delay				39.4								
HCM 6th LOS				D								

HCM 6th Signalized Intersection Summary
17: San Vicente Bd

12/07/2020

























												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑↑			↑↑↑			↑↑↑		↑	↑↑↑	
Traffic Volume (veh/h)	0	762	148	0	1280	494	0	686	0	195	1071	3
Future Volume (veh/h)	0	762	148	0	1280	494	0	686	0	195	1071	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870	0	1870	0	1870	1870	1870
Adj Flow Rate, veh/h	0	828	161	0	1391	537	0	746	0	212	1164	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2	0	2	0	2	2	2
Cap, veh/h	0	1913	369	0	1622	617	0	1791	0	247	2430	6
Arrive On Green	0.00	0.45	0.45	0.00	0.45	0.45	0.00	0.28	0.00	0.14	0.46	0.46
Sat Flow, veh/h	0	4440	824	0	3790	1378	0	6958	0	1781	5258	14
Grp Volume(v), veh/h	0	658	331	0	1306	622	0	746	0	212	754	413
Grp Sat Flow(s),veh/h/ln	0	1702	1692	0	1702	1596	0	1609	0	1781	1702	1868
Q Serve(g_s), s	0.0	13.2	13.4	0.0	34.4	35.2	0.0	9.5	0.0	11.6	15.3	15.3
Cycle Q Clear(g_c), s	0.0	13.2	13.4	0.0	34.4	35.2	0.0	9.5	0.0	11.6	15.3	15.3
Prop In Lane	0.00		0.49	0.00		0.86	0.00		0.00	1.00		0.01
Lane Grp Cap(c), veh/h	0	1524	758	0	1524	715	0	1791	0	247	1573	863
V/C Ratio(X)	0.00	0.43	0.44	0.00	0.86	0.87	0.00	0.42	0.00	0.86	0.48	0.48
Avail Cap(c_a), veh/h	0	1583	787	0	1583	742	0	1791	0	347	1573	863
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.95	0.95	0.00	1.00	1.00	0.00	0.97	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	18.9	18.9	0.0	24.7	25.0	0.0	29.5	0.0	42.1	18.6	18.6
Incr Delay (d2), s/veh	0.0	0.2	0.4	0.0	4.8	10.6	0.0	0.7	0.0	14.0	1.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.1	5.2	0.0	14.2	14.8	0.0	3.7	0.0	6.0	6.1	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	19.1	19.3	0.0	29.5	35.6	0.0	30.1	0.0	56.0	19.6	20.5
LnGrp LOS	A	B	B	A	C	D	A	C	A	E	B	C
Approach Vol, veh/h		989			1928			746			1379	
Approach Delay, s/veh		19.2			31.5			30.1			25.5	
Approach LOS		B			C			C			C	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		50.7		49.3	18.4	32.3		49.3				
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		44.0		46.5	19.5	20.0		46.5				
Max Q Clear Time (g_c+I1), s		17.3		15.4	13.6	11.5		37.2				
Green Ext Time (p_c), s		9.1		7.9	0.3	3.3		7.5				
Intersection Summary												
HCM 6th Ctrl Delay				27.2								
HCM 6th LOS				C								

EXISTING PM PEAK HOUR

HCM 6th Signalized Intersection Summary

2: Wilshire Bd





















12/07/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	1155	177	67	712	195	137	621	57	179	1047	184
Future Volume (veh/h)	162	1155	177	67	712	195	137	621	57	179	1047	184
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.89	1.00		0.88	1.00		0.92	1.00		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	176	1255	192	73	774	212	149	675	62	195	1138	200
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	295	1063	421	214	987	387	252	930	85	139	1012	540
Arrive On Green	0.08	0.30	0.30	0.06	0.28	0.28	0.08	0.28	0.28	0.08	0.28	0.28
Sat Flow, veh/h	1781	3554	1407	1781	3554	1394	1781	3264	299	1781	3554	1460
Grp Volume(v), veh/h	176	1255	192	73	774	212	149	367	370	195	1138	200
Grp Sat Flow(s),veh/h/ln	1781	1777	1407	1781	1777	1394	1781	1777	1787	1781	1777	1460
Q Serve(g_s), s	4.5	19.1	7.1	1.8	12.9	8.3	3.7	11.9	12.0	5.0	18.2	6.5
Cycle Q Clear(g_c), s	4.5	19.1	7.1	1.8	12.9	8.3	3.7	11.9	12.0	5.0	18.2	6.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	295	1063	421	214	987	387	252	506	509	139	1012	540
V/C Ratio(X)	0.60	1.18	0.46	0.34	0.78	0.55	0.59	0.73	0.73	1.40	1.12	0.37
Avail Cap(c_a), veh/h	295	1063	421	252	999	392	252	506	509	139	1012	540
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.6	22.4	18.2	17.2	21.3	19.7	16.8	20.6	20.6	29.5	22.9	15.0
Incr Delay (d2), s/veh	3.3	91.4	0.8	0.9	4.1	1.6	3.4	8.1	8.1	218.0	69.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	20.7	2.2	0.7	5.5	2.7	1.6	5.7	5.7	10.5	16.6	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.9	113.8	19.0	18.2	25.5	21.3	20.1	28.7	28.8	247.5	91.8	17.0
LnGrp LOS	B	F	B	B	C	C	C	C	C	F	F	B
Approach Vol, veh/h		1623			1059			886			1533	
Approach Delay, s/veh		92.4			24.1			27.3			101.9	
Approach LOS		F			C			C			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	22.7	8.1	23.6	9.5	22.7	9.5	22.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	7.0	14.0	3.8	21.1	5.7	20.2	6.5	14.9				
Green Ext Time (p_c), s	0.0	1.7	0.0	0.0	0.0	0.0	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay			69.8									
HCM 6th LOS			E									
Notes												
User approved changes to right turn type.												

HCM Signalized Intersection Capacity Analysis

3: Del Valle Dr/8th St













12/07/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	222	18	124	0	64	0	680	85	287	1133	0
Future Volume (vph)	8	222	18	124	0	64	0	680	85	287	1133	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5	4.5		4.5		4.5	4.5	
Lane Util. Factor		1.00		0.95	0.91	0.95		0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	1.00	0.98		1.00		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00		1.00		0.99	1.00	
Frt		0.99		1.00	0.99	0.85		0.98		1.00	1.00	
Flt Protected		1.00		0.95	0.96	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		1841		1681	1596	1478		3480		1751	3539	
Flt Permitted		0.99		0.53	0.61	1.00		1.00		0.31	1.00	
Satd. Flow (perm)		1826		945	1018	1478		3480		571	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	241	20	135	0	70	0	739	92	312	1232	0
RTOR Reduction (vph)	0	8	0	0	27	47	0	16	0	0	0	0
Lane Group Flow (vph)	0	262	0	70	45	16	0	815	0	312	1232	0
Confl. Peds. (#/hr)	5					5				28		6
Confl. Bikes (#/hr)						2						6
Turn Type	Perm	NA		Perm	NA	Perm		NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8				6		
Actuated Green, G (s)		11.6		11.6	11.6	11.6		24.4		24.4	24.4	
Effective Green, g (s)		11.6		11.6	11.6	11.6		24.4		24.4	24.4	
Actuated g/C Ratio		0.26		0.26	0.26	0.26		0.54		0.54	0.54	
Clearance Time (s)		4.5		4.5	4.5	4.5		4.5		4.5	4.5	
Vehicle Extension (s)		3.0		3.0	3.0	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)		470		243	262	380		1886		309	1918	
v/s Ratio Prot								0.23				0.35
v/s Ratio Perm		c0.14		0.07	0.04	0.01				c0.55		
v/c Ratio		0.56		0.29	0.17	0.04		0.43		1.01	0.64	
Uniform Delay, d1		14.5		13.4	13.0	12.5		6.2		10.3	7.2	
Progression Factor		1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		1.4		0.7	0.3	0.0		0.7		53.7	1.7	
Delay (s)		15.9		14.0	13.3	12.6		6.9		64.0	8.9	
Level of Service		B		B	B	B		A		E	A	
Approach Delay (s)		15.9			13.3			6.9			20.0	
Approach LOS		B			B			A			C	
Intersection Summary												
HCM 2000 Control Delay		15.3						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.86										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		9.0		
Intersection Capacity Utilization		71.5%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Signalized Intersection Summary

4: San Vicente Bd


























12/07/2020

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑		↵	↑↑	↵	↵	↑↑↑	↵		↑↑↑	↵
Traffic Volume (veh/h)	0	609	0	221	962	54	22	891	45	0	697	118
Future Volume (veh/h)	0	609	0	221	962	54	22	891	45	0	697	118
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	0	1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	662	0	240	1046	59	24	968	49	0	758	128
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	0	2	2	2	2	2	2	0	2	2
Cap, veh/h	0	1695	0	279	2411	1048	127	1490	367	0	1183	357
Arrive On Green	0.00	0.95	0.00	0.16	0.68	0.68	0.23	0.23	0.23	0.00	0.08	0.08
Sat Flow, veh/h	0	3741	0	1781	3554	1545	626	6434	1585	0	5274	1543
Grp Volume(v), veh/h	0	662	0	240	1046	59	24	968	49	0	758	128
Grp Sat Flow(s),veh/h/ln	0	1777	0	1781	1777	1545	626	1609	1585	0	1702	1543
Q Serve(g_s), s	0.0	1.4	0.0	13.1	13.4	1.3	3.6	13.6	2.5	0.0	14.4	7.9
Cycle Q Clear(g_c), s	0.0	1.4	0.0	13.1	13.4	1.3	18.1	13.6	2.5	0.0	14.4	7.9
Prop In Lane	0.00		0.00	1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	0	1695	0	279	2411	1048	127	1490	367	0	1183	357
V/C Ratio(X)	0.00	0.39	0.00	0.86	0.43	0.06	0.19	0.65	0.13	0.00	0.64	0.36
Avail Cap(c_a), veh/h	0	1695	0	472	2411	1048	141	1641	404	0	1302	393
HCM Platoon Ratio	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33
Upstream Filter(l)	0.00	0.91	0.00	0.74	0.74	0.74	1.00	1.00	1.00	0.00	0.98	0.98
Uniform Delay (d), s/veh	0.0	1.2	0.0	41.1	7.3	5.4	43.3	34.7	30.5	0.0	42.1	39.1
Incr Delay (d2), s/veh	0.0	0.6	0.0	6.2	0.4	0.1	0.7	0.8	0.2	0.0	0.9	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.5	0.0	6.2	4.6	0.4	0.6	5.3	1.0	0.0	6.7	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	1.9	0.0	47.3	7.8	5.5	44.0	35.5	30.6	0.0	43.1	39.7
LnGrp LOS	A	A	A	D	A	A	D	D	C	A	D	D
Approach Vol, veh/h		662			1345			1041			886	
Approach Delay, s/veh		1.9			14.7			35.5			42.6	
Approach LOS		A			B			D			D	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	20.1	52.2		27.7		72.3		27.7				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	26.5	34.0		25.5		65.0		25.5				
Max Q Clear Time (g_c+I1), s	15.1	3.4		20.1		15.4		16.4				
Green Ext Time (p_c), s	0.5	5.1		3.1		10.3		3.8				
Intersection Summary												
HCM 6th Ctrl Delay				24.3								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary













5: Fairfax Ave & Olympic Ave

12/07/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	92	1414	16	64	1040	4	31	509	69	2	820	225
Future Volume (veh/h)	92	1414	16	64	1040	4	31	509	69	2	820	225
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.95	1.00		0.94	0.98		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	100	1537	17	70	1130	4	34	553	75	2	891	245
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	211	2263	25	138	2284	8	54	1482	200	36	1059	290
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.03	0.47	0.47	0.80	0.80	0.80
Sat Flow, veh/h	496	5203	58	332	5251	19	1781	3119	421	1	2651	726
Grp Volume(v), veh/h	100	1006	548	70	732	402	34	314	314	629	0	509
Grp Sat Flow(s),veh/h/ln	496	1702	1856	332	1702	1866	1781	1777	1764	1869	0	1509
Q Serve(g_s), s	18.2	23.7	23.7	19.8	15.5	15.5	1.9	11.3	11.4	0.0	0.0	20.9
Cycle Q Clear(g_c), s	33.7	23.7	23.7	43.5	15.5	15.5	1.9	11.3	11.4	20.6	0.0	20.9
Prop In Lane	1.00		0.03	1.00		0.01	1.00		0.24	0.00		0.48
Lane Grp Cap(c), veh/h	211	1481	807	138	1481	812	54	844	838	783	0	603
V/C Ratio(X)	0.47	0.68	0.68	0.51	0.49	0.49	0.62	0.37	0.37	0.80	0.00	0.84
Avail Cap(c_a), veh/h	211	1481	807	138	1481	812	89	844	838	783	0	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	0.77	0.77	0.77	1.00	1.00	1.00	0.91	0.00	0.91
Uniform Delay (d), s/veh	32.5	22.7	22.7	40.7	20.3	20.3	47.9	16.7	16.8	8.1	0.0	8.1
Incr Delay (d2), s/veh	1.7	1.3	2.3	2.3	0.2	0.4	11.2	1.3	1.3	7.9	0.0	12.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	9.4	10.5	1.8	6.0	6.6	1.0	4.8	4.8	5.0	0.0	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.1	23.9	25.0	43.0	20.5	20.7	59.1	18.0	18.0	16.0	0.0	20.7
LnGrp LOS	C	C	C	D	C	C	E	B	B	B	A	C
Approach Vol, veh/h	1654		1204				662				1138	
Approach Delay, s/veh	24.9		21.9				20.1				18.1	
Approach LOS	C		C				C				B	
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	52.0		48.0		7.6	44.4	48.0					
Change Period (Y+Rc), s	4.5		4.5		4.5	4.5	4.5					
Max Green Setting (Gmax), s	47.0		43.5		5.0	37.5	43.5					
Max Q Clear Time (g_c+I1), s	13.4		35.7		3.9	22.9	45.5					
Green Ext Time (p_c), s	4.3		5.9		0.0	6.9	0.0					
Intersection Summary												
HCM 6th Ctrl Delay			21.8									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
17: San Vicente Bd

12/07/2020

























												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑↑			↑↑↑			↑↑↑		↑	↑↑↑	
Traffic Volume (veh/h)	0	1248	250	0	968	215	0	1111	0	99	593	2
Future Volume (veh/h)	0	1248	250	0	968	215	0	1111	0	99	593	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870	0	1870	0	1870	1870	1870
Adj Flow Rate, veh/h	0	1357	272	0	1052	234	0	1208	0	108	645	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2	0	2	0	2	2	2
Cap, veh/h	0	1716	343	0	1685	374	0	2469	0	136	2656	8
Arrive On Green	0.00	0.13	0.13	0.00	0.40	0.40	0.00	0.38	0.00	0.08	0.51	0.51
Sat Flow, veh/h	0	4408	849	0	4333	925	0	6958	0	1781	5255	16
Grp Volume(v), veh/h	0	1089	540	0	860	426	0	1208	0	108	418	229
Grp Sat Flow(s),veh/h/ln	0	1702	1685	0	1702	1686	0	1609	0	1781	1702	1867
Q Serve(g_s), s	0.0	31.0	31.0	0.0	20.1	20.2	0.0	14.2	0.0	6.0	6.9	6.9
Cycle Q Clear(g_c), s	0.0	31.0	31.0	0.0	20.1	20.2	0.0	14.2	0.0	6.0	6.9	6.9
Prop In Lane	0.00		0.50	0.00		0.55	0.00		0.00	1.00		0.01
Lane Grp Cap(c), veh/h	0	1377	682	0	1377	682	0	2469	0	136	1720	944
V/C Ratio(X)	0.00	0.79	0.79	0.00	0.62	0.63	0.00	0.49	0.00	0.79	0.24	0.24
Avail Cap(c_a), veh/h	0	1481	733	0	1481	733	0	2469	0	240	1720	944
HCM Platoon Ratio	1.00	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.63	0.63	0.00	1.00	1.00	0.00	0.70	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	39.2	39.2	0.0	23.7	23.7	0.0	23.4	0.0	45.4	13.9	13.9
Incr Delay (d2), s/veh	0.0	1.8	3.6	0.0	0.7	1.5	0.0	0.5	0.0	9.8	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	14.4	14.6	0.0	8.0	8.1	0.0	5.4	0.0	3.0	2.7	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	41.0	42.8	0.0	24.5	25.2	0.0	23.9	0.0	55.2	14.3	14.6
LnGrp LOS	A	D	D	A	C	C	A	C	A	E	B	B
Approach Vol, veh/h		1629			1286			1208			755	
Approach Delay, s/veh		41.6			24.7			23.9			20.2	
Approach LOS		D			C			C			C	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		55.0		45.0	12.2	42.9		45.0				
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		47.0		43.5	13.5	29.0		43.5				
Max Q Clear Time (g_c+I1), s		8.9		33.0	8.0	16.2		22.2				
Green Ext Time (p_c), s		4.7		7.4	0.1	6.8		9.5				
Intersection Summary												
HCM 6th Ctrl Delay			29.4									
HCM 6th LOS			C									

EXISTING + PROJECT PM PEAK HOUR

HCM 6th Signalized Intersection Summary

2: Wilshire Bd




















12/07/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	1155	185	67	712	195	142	627	59	179	1056	184
Future Volume (veh/h)	162	1155	185	67	712	195	142	627	59	179	1056	184
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.89	1.00		0.88	1.00		0.92	1.00		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	176	1255	201	73	774	212	154	682	64	195	1148	200
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	295	1063	421	214	987	387	252	928	87	139	1012	540
Arrive On Green	0.08	0.30	0.30	0.06	0.28	0.28	0.08	0.28	0.28	0.08	0.28	0.28
Sat Flow, veh/h	1781	3554	1407	1781	3554	1394	1781	3257	305	1781	3554	1460
Grp Volume(v), veh/h	176	1255	201	73	774	212	154	372	374	195	1148	200
Grp Sat Flow(s),veh/h/ln	1781	1777	1407	1781	1777	1394	1781	1777	1785	1781	1777	1460
Q Serve(g_s), s	4.5	19.1	7.5	1.8	12.9	8.3	3.9	12.1	12.1	5.0	18.2	6.5
Cycle Q Clear(g_c), s	4.5	19.1	7.5	1.8	12.9	8.3	3.9	12.1	12.1	5.0	18.2	6.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	295	1063	421	214	987	387	252	506	508	139	1012	540
V/C Ratio(X)	0.60	1.18	0.48	0.34	0.78	0.55	0.61	0.73	0.74	1.40	1.13	0.37
Avail Cap(c_a), veh/h	295	1063	421	252	999	392	252	506	508	139	1012	540
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.6	22.4	18.3	17.2	21.3	19.7	16.8	20.7	20.7	29.5	22.9	15.0
Incr Delay (d2), s/veh	3.3	91.4	0.8	0.9	4.1	1.6	4.0	8.4	8.5	218.0	72.8	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	20.7	2.3	0.7	5.5	2.7	1.7	5.8	5.8	10.5	17.2	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.9	113.8	19.2	18.2	25.5	21.3	20.8	29.1	29.2	247.5	95.7	17.0
LnGrp LOS	B	F	B	B	C	C	C	C	C	F	F	B
Approach Vol, veh/h	1632		1059				900		1543			
Approach Delay, s/veh	92.0		24.1				27.7		104.7			
Approach LOS	F		C				C		F			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	22.7	8.1	23.6	9.5	22.7	9.5	22.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	7.0	14.1	3.8	21.1	5.9	20.2	6.5	14.9				
Green Ext Time (p_c), s	0.0	1.7	0.0	0.0	0.0	0.0	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay	70.5											
HCM 6th LOS	E											
Notes												

HCM Signalized Intersection Capacity Analysis

3: Del Valle Dr/8th St

12/07/2020













												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	222	18	131	0	71	0	687	85	305	1133	0
Future Volume (vph)	8	222	18	131	0	71	0	687	85	305	1133	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5	4.5		4.5		4.5	4.5	
Lane Util. Factor		1.00		0.95	0.91	0.95		0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	1.00	0.98		1.00		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00		1.00		0.99	1.00	
Frt		0.99		1.00	0.98	0.85		0.98		1.00	1.00	
Flt Protected		1.00		0.95	0.96	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		1841		1681	1594	1478		3481		1751	3539	
Flt Permitted		0.99		0.53	0.60	1.00		1.00		0.31	1.00	
Satd. Flow (perm)		1826		945	1004	1478		3481		564	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	241	20	142	0	77	0	747	92	332	1232	0
RTOR Reduction (vph)	0	8	0	0	27	51	0	16	0	0	0	0
Lane Group Flow (vph)	0	262	0	74	49	18	0	823	0	332	1232	0
Confl. Peds. (#/hr)	5					5				28		6
Confl. Bikes (#/hr)						2						6
Turn Type	Perm	NA		Perm	NA	Perm		NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8				6		
Actuated Green, G (s)		11.6		11.6	11.6	11.6		24.4		24.4	24.4	
Effective Green, g (s)		11.6		11.6	11.6	11.6		24.4		24.4	24.4	
Actuated g/C Ratio		0.26		0.26	0.26	0.26		0.54		0.54	0.54	
Clearance Time (s)		4.5		4.5	4.5	4.5		4.5		4.5	4.5	
Vehicle Extension (s)		3.0		3.0	3.0	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)		470		243	258	380		1887		305	1918	
v/s Ratio Prot								0.24			0.35	
v/s Ratio Perm		c0.14		0.08	0.05	0.01				c0.59		
v/c Ratio		0.56		0.30	0.19	0.05		0.44		1.09	0.64	
Uniform Delay, d1		14.5		13.5	13.0	12.5		6.2		10.3	7.2	
Progression Factor		1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		1.4		0.7	0.4	0.1		0.7		77.3	1.7	
Delay (s)		15.9		14.2	13.4	12.6		6.9		87.6	8.9	
Level of Service		B		B	B	B		A		F	A	
Approach Delay (s)		15.9			13.4			6.9			25.6	
Approach LOS		B			B			A			C	
Intersection Summary												
HCM 2000 Control Delay			18.3				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.92									
Actuated Cycle Length (s)			45.0				Sum of lost time (s)			9.0		
Intersection Capacity Utilization			72.9%				ICU Level of Service			C		
Analysis Period (min)			15									

c Critical Lane Group

HCM 6th Signalized Intersection Summary

4: San Vicente Bd


























12/07/2020

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑		↰	↑↑	↱	↰	↑↑↑	↱		↑↑↑	↱
Traffic Volume (veh/h)	0	623	0	226	971	54	22	891	45	0	697	125
Future Volume (veh/h)	0	623	0	226	971	54	22	891	45	0	697	125
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	0	1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	677	0	246	1055	59	24	968	49	0	758	136
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	0	2	2	2	2	2	2	0	2	2
Cap, veh/h	0	1683	0	285	2410	1048	126	1491	367	0	1183	358
Arrive On Green	0.00	0.95	0.00	0.16	0.68	0.68	0.23	0.23	0.23	0.00	0.08	0.08
Sat Flow, veh/h	0	3741	0	1781	3554	1545	622	6434	1585	0	5274	1543
Grp Volume(v), veh/h	0	677	0	246	1055	59	24	968	49	0	758	136
Grp Sat Flow(s),veh/h/ln	0	1777	0	1781	1777	1545	622	1609	1585	0	1702	1543
Q Serve(g_s), s	0.0	1.6	0.0	13.5	13.6	1.3	3.7	13.6	2.5	0.0	14.4	8.4
Cycle Q Clear(g_c), s	0.0	1.6	0.0	13.5	13.6	1.3	18.1	13.6	2.5	0.0	14.4	8.4
Prop In Lane	0.00		0.00	1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	0	1683	0	285	2410	1048	126	1491	367	0	1183	358
V/C Ratio(X)	0.00	0.40	0.00	0.86	0.44	0.06	0.19	0.65	0.13	0.00	0.64	0.38
Avail Cap(c_a), veh/h	0	1683	0	472	2410	1048	141	1641	404	0	1302	393
HCM Platoon Ratio	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33
Upstream Filter(l)	0.00	0.90	0.00	0.74	0.74	0.74	1.00	1.00	1.00	0.00	0.98	0.98
Uniform Delay (d), s/veh	0.0	1.4	0.0	41.0	7.4	5.4	43.3	34.7	30.5	0.0	42.1	39.3
Incr Delay (d2), s/veh	0.0	0.6	0.0	6.7	0.4	0.1	0.7	0.8	0.2	0.0	0.9	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.6	0.0	6.4	4.7	0.4	0.6	5.3	1.0	0.0	6.7	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	2.1	0.0	47.7	7.8	5.5	44.0	35.5	30.6	0.0	43.0	40.0
LnGrp LOS	A	A	A	D	A	A	D	D	C	A	D	D
Approach Vol, veh/h		677			1360			1041			894	
Approach Delay, s/veh		2.1			14.9			35.5			42.6	
Approach LOS		A			B			D			D	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	20.5	51.8		27.7		72.3		27.7				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	26.5	34.0		25.5		65.0		25.5				
Max Q Clear Time (g_c+I1), s	15.5	3.6		20.1		15.6		16.4				
Green Ext Time (p_c), s	0.5	5.2		3.1		10.5		3.8				
Intersection Summary												
HCM 6th Ctrl Delay				24.3								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary













5: Fairfax Ave & Olympic Ave

12/07/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	99	1414	16	64	1040	4	31	516	69	2	825	229
Future Volume (veh/h)	99	1414	16	64	1040	4	31	516	69	2	825	229
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.95	1.00		0.94	0.98		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	108	1537	17	70	1130	4	34	561	75	2	897	249
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	211	2263	25	138	2284	8	54	1485	198	36	1056	292
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.03	0.47	0.47	0.80	0.80	0.80
Sat Flow, veh/h	496	5203	58	332	5251	19	1781	3125	416	1	2645	731
Grp Volume(v), veh/h	108	1006	548	70	732	402	34	318	318	634	0	514
Grp Sat Flow(s),veh/h/ln	496	1702	1856	332	1702	1866	1781	1777	1765	1869	0	1508
Q Serve(g_s), s	20.1	23.7	23.7	19.8	15.5	15.5	1.9	11.4	11.5	0.0	0.0	21.5
Cycle Q Clear(g_c), s	35.5	23.7	23.7	43.5	15.5	15.5	1.9	11.4	11.5	21.2	0.0	21.5
Prop In Lane	1.00		0.03	1.00		0.01	1.00		0.24	0.00		0.48
Lane Grp Cap(c), veh/h	211	1481	807	138	1481	812	54	844	838	783	0	602
V/C Ratio(X)	0.51	0.68	0.68	0.51	0.49	0.49	0.62	0.38	0.38	0.81	0.00	0.85
Avail Cap(c_a), veh/h	211	1481	807	138	1481	812	89	844	838	783	0	602
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(l)	1.00	1.00	1.00	0.77	0.77	0.77	1.00	1.00	1.00	0.91	0.00	0.91
Uniform Delay (d), s/veh	33.1	22.7	22.7	40.7	20.3	20.3	47.9	16.8	16.8	8.2	0.0	8.2
Incr Delay (d2), s/veh	2.1	1.3	2.3	2.3	0.2	0.4	11.2	1.3	1.3	8.2	0.0	13.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	9.4	10.5	1.8	6.0	6.6	1.0	4.8	4.8	5.1	0.0	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.2	23.9	25.0	43.0	20.5	20.7	59.1	18.1	18.1	16.3	0.0	21.3
LnGrp LOS	D	C	C	D	C	C	E	B	B	B	A	C
Approach Vol, veh/h	1662			1204				670			1148	
Approach Delay, s/veh	25.0			21.9				20.2			18.6	
Approach LOS	C			C				C			B	
Timer - Assigned Phs	2			4		5		6		8		
Phs Duration (G+Y+Rc), s	52.0			48.0		7.6		44.4		48.0		
Change Period (Y+Rc), s	4.5			4.5		4.5		4.5		4.5		
Max Green Setting (Gmax), s	47.0			43.5		5.0		37.5		43.5		
Max Q Clear Time (g_c+I1), s	13.5			37.5		3.9		23.5		45.5		
Green Ext Time (p_c), s	4.4			4.7		0.0		6.8		0.0		
Intersection Summary												
HCM 6th Ctrl Delay	21.9											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary 17: San Vicente Bd

12/07/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑↑			↑↑↑			↑↑↑		↑	↑↑↑	
Traffic Volume (veh/h)	0	1248	250	0	968	219	0	1116	0	99	596	2
Future Volume (veh/h)	0	1248	250	0	968	219	0	1116	0	99	596	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870	0	1870	0	1870	1870	1870
Adj Flow Rate, veh/h	0	1357	272	0	1052	238	0	1213	0	108	648	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2	0	2	0	2	2	2
Cap, veh/h	0	1716	343	0	1679	379	0	2469	0	136	2656	8
Arrive On Green	0.00	0.13	0.13	0.00	0.40	0.40	0.00	0.38	0.00	0.08	0.51	0.51
Sat Flow, veh/h	0	4408	849	0	4318	938	0	6958	0	1781	5255	16
Grp Volume(v), veh/h	0	1089	540	0	863	427	0	1213	0	108	420	230
Grp Sat Flow(s),veh/h/ln	0	1702	1685	0	1702	1684	0	1609	0	1781	1702	1867
Q Serve(g_s), s	0.0	31.0	31.0	0.0	20.2	20.2	0.0	14.3	0.0	6.0	7.0	7.0
Cycle Q Clear(g_c), s	0.0	31.0	31.0	0.0	20.2	20.2	0.0	14.3	0.0	6.0	7.0	7.0
Prop In Lane	0.00		0.50	0.00		0.56	0.00		0.00	1.00		0.01
Lane Grp Cap(c), veh/h	0	1377	682	0	1377	681	0	2469	0	136	1720	944
V/C Ratio(X)	0.00	0.79	0.79	0.00	0.63	0.63	0.00	0.49	0.00	0.79	0.24	0.24
Avail Cap(c_a), veh/h	0	1481	733	0	1481	732	0	2469	0	240	1720	944
HCM Platoon Ratio	1.00	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.63	0.63	0.00	1.00	1.00	0.00	0.69	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	39.2	39.2	0.0	23.7	23.8	0.0	23.4	0.0	45.4	14.0	14.0
Incr Delay (d2), s/veh	0.0	1.8	3.6	0.0	0.8	1.5	0.0	0.5	0.0	9.8	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	14.4	14.6	0.0	8.0	8.1	0.0	5.4	0.0	3.0	2.7	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	41.0	42.8	0.0	24.5	25.3	0.0	23.9	0.0	55.2	14.3	14.6
LnGrp LOS	A	D	D	A	C	C	A	C	A	E	B	B
Approach Vol, veh/h		1629			1290			1213			758	
Approach Delay, s/veh		41.6			24.8			23.9			20.2	
Approach LOS		D			C			C			C	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		55.0		45.0	12.2	42.9		45.0				
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		47.0		43.5	13.5	29.0		43.5				
Max Q Clear Time (g_c+I1), s		9.0		33.0	8.0	16.3		22.2				
Green Ext Time (p_c), s		4.7		7.4	0.1	6.8		9.5				
Intersection Summary												
HCM 6th Ctrl Delay			29.4									
HCM 6th LOS			C									
























FUTURE HCS WORKSHEETS

WITHOUT PROJECT AM PEAK HOUR

HCM 6th Signalized Intersection Summary

2: Wilshire Bd

12/07/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	632	80	102	1347	192	182	813	65	121	1120	295
Future Volume (veh/h)	112	632	80	102	1347	192	182	813	65	121	1120	295
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.88	0.98		0.88	1.00		0.92	1.00		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	122	687	87	111	1464	209	198	884	71	132	1217	321
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	237	1009	397	309	999	393	252	957	77	139	1029	534
Arrive On Green	0.07	0.28	0.28	0.07	0.28	0.28	0.08	0.29	0.29	0.08	0.29	0.29
Sat Flow, veh/h	1781	3554	1399	1781	3554	1396	1781	3308	266	1781	3554	1461
Grp Volume(v), veh/h	122	687	87	111	1464	209	198	475	480	132	1217	321
Grp Sat Flow(s),veh/h/ln	1781	1777	1399	1781	1777	1396	1781	1777	1796	1781	1777	1461
Q Serve(g_s), s	3.1	11.0	3.0	2.8	18.0	8.1	5.0	16.6	16.6	4.7	18.5	11.5
Cycle Q Clear(g_c), s	3.1	11.0	3.0	2.8	18.0	8.1	5.0	16.6	16.6	4.7	18.5	11.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	237	1009	397	309	999	393	252	514	520	139	1029	534
V/C Ratio(X)	0.51	0.68	0.22	0.36	1.46	0.53	0.79	0.92	0.92	0.95	1.18	0.60
Avail Cap(c_a), veh/h	252	1009	397	328	999	393	252	514	520	139	1029	534
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.0	20.3	17.5	15.6	23.0	19.4	17.2	22.0	22.0	29.4	22.7	16.8
Incr Delay (d2), s/veh	1.7	1.9	0.3	0.7	214.7	1.4	13.3	22.1	21.9	60.6	92.5	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	4.5	0.9	1.1	36.7	2.6	2.8	9.5	9.6	4.3	20.3	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.7	22.2	17.8	16.3	237.7	20.8	30.5	44.1	44.0	90.0	115.2	21.8
LnGrp LOS	B	C	B	B	F	C	C	D	D	F	F	C
Approach Vol, veh/h	896					1784		1153		1670		
Approach Delay, s/veh	21.3					198.5		41.7		95.3		
Approach LOS	C					F		D		F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	23.0	8.8	22.7	9.5	23.0	9.0	22.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	6.7	18.6	4.8	13.0	7.0	20.5	5.1	20.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay 105.5

HCM 6th LOS F




















Notes

User approved changes to right turn type.

HCM Signalized Intersection Capacity Analysis

3: Del Valle Dr/8th St













12/07/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	23	0	230	0	262	0	807	106	65	1077	0
Future Volume (vph)	21	23	0	230	0	262	0	807	106	65	1077	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5	4.5		4.5		4.5	4.5	
Lane Util. Factor		1.00		0.95	0.91	0.95		0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	0.99	0.98		1.00		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00		1.00		0.99	1.00	
Frt		1.00		1.00	0.91	0.85		0.98		1.00	1.00	
Flt Protected		0.98		0.95	0.98	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		1817		1681	1493	1478		3478		1756	3539	
Flt Permitted		0.83		0.73	0.87	1.00		1.00		0.24	1.00	
Satd. Flow (perm)		1540		1284	1321	1478		3478		439	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	23	25	0	250	0	285	0	877	115	71	1171	0
RTOR Reduction (vph)	0	0	0	0	42	42	0	18	0	0	0	0
Lane Group Flow (vph)	0	48	0	182	137	132	0	974	0	71	1171	0
Confl. Peds. (#/hr)	5					5				28		6
Confl. Bikes (#/hr)						2						6
Turn Type	Perm	NA		Perm	NA	Perm		NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8				6		
Actuated Green, G (s)		12.3		12.3	12.3	12.3		23.7		23.7	23.7	
Effective Green, g (s)		12.3		12.3	12.3	12.3		23.7		23.7	23.7	
Actuated g/C Ratio		0.27		0.27	0.27	0.27		0.53		0.53	0.53	
Clearance Time (s)		4.5		4.5	4.5	4.5		4.5		4.5	4.5	
Vehicle Extension (s)		3.0		3.0	3.0	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)		420		350	361	403		1831		231	1863	
v/s Ratio Prot								0.28			c0.33	
v/s Ratio Perm		0.03		c0.14	0.10	0.09				0.16		
v/c Ratio		0.11		0.52	0.38	0.33		0.53		0.31	0.63	
Uniform Delay, d1		12.3		13.8	13.3	13.0		7.0		6.0	7.5	
Progression Factor		1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		0.1		1.4	0.7	0.5		1.1		3.4	1.6	
Delay (s)		12.4		15.2	13.9	13.5		8.1		9.4	9.2	
Level of Service		B		B	B	B		A		A	A	
Approach Delay (s)		12.4			14.2			8.1			9.2	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM 2000 Control Delay		9.8										
HCM 2000 Volume to Capacity ratio		0.59										
Actuated Cycle Length (s)		45.0										
Intersection Capacity Utilization		55.2%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Signalized Intersection Summary

4: San Vicente Bd


























12/07/2020

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑		↵	↑↑	↵	↵	↑↑↑	↵		↑↑↑	↵
Traffic Volume (veh/h)	0	720	0	115	1040	110	30	586	63	0	1496	97
Future Volume (veh/h)	0	720	0	115	1040	110	30	586	63	0	1496	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	0	1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	783	0	125	1130	120	33	637	68	0	1626	105
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	0	2	2	2	2	2	2	0	2	2
Cap, veh/h	0	1274	0	155	1743	754	114	2700	665	0	2143	652
Arrive On Green	0.00	0.72	0.00	0.09	0.49	0.49	0.42	0.42	0.42	0.00	0.42	0.42
Sat Flow, veh/h	0	3741	0	1781	3554	1537	280	6434	1585	0	5274	1553
Grp Volume(v), veh/h	0	783	0	125	1130	120	33	637	68	0	1626	105
Grp Sat Flow(s),veh/h/ln	0	1777	0	1781	1777	1537	280	1609	1585	0	1702	1553
Q Serve(g_s), s	0.0	11.1	0.0	6.9	23.8	4.3	11.4	6.4	2.6	0.0	27.1	4.2
Cycle Q Clear(g_c), s	0.0	11.1	0.0	6.9	23.8	4.3	38.5	6.4	2.6	0.0	27.1	4.2
Prop In Lane	0.00		0.00	1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	0	1274	0	155	1743	754	114	2700	665	0	2143	652
V/C Ratio(X)	0.00	0.61	0.00	0.81	0.65	0.16	0.29	0.24	0.10	0.00	0.76	0.16
Avail Cap(c_a), veh/h	0	1274	0	205	1743	754	118	2799	689	0	2221	676
HCM Platoon Ratio	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.72	0.00	0.75	0.75	0.75	1.00	1.00	1.00	0.00	0.82	0.82
Uniform Delay (d), s/veh	0.0	10.6	0.0	44.8	19.0	14.1	41.1	18.7	17.6	0.0	24.7	18.1
Incr Delay (d2), s/veh	0.0	1.6	0.0	12.5	1.4	0.3	1.4	0.0	0.1	0.0	1.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.1	0.0	3.6	9.7	1.5	0.8	2.3	1.0	0.0	10.8	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	12.3	0.0	57.3	20.5	14.4	42.5	18.7	17.7	0.0	26.0	18.2
LnGrp LOS	A	B	A	E	C	B	D	B	B	A	C	B
Approach Vol, veh/h		783			1375			738			1731	
Approach Delay, s/veh		12.3			23.3			19.7			25.5	
Approach LOS		B			C			B			C	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	13.2	40.4		46.5		53.5		46.5				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	11.5	31.0		43.5		47.0		43.5				
Max Q Clear Time (g_c+I1), s	8.9	13.1		40.5		25.8		29.1				
Green Ext Time (p_c), s	0.1	5.2		1.5		9.2		9.9				
Intersection Summary												
HCM 6th Ctrl Delay				21.7								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

5: Fairfax Ave & Olympic Ave













12/07/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	107	860	21	39	1575	4	73	602	27	0	762	360
Future Volume (veh/h)	107	860	21	39	1575	4	73	602	27	0	762	360
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.95	1.00		0.93	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	116	935	23	42	1712	4	79	654	29	0	828	391
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	0	2	2
Cap, veh/h	156	2687	66	317	2761	6	89	1329	59	0	671	315
Arrive On Green	0.52	0.52	0.52	0.52	0.52	0.52	0.05	0.38	0.38	0.00	0.58	0.58
Sat Flow, veh/h	284	5119	126	584	5259	12	1781	3453	153	0	2408	1086
Grp Volume(v), veh/h	116	621	337	42	1108	608	79	336	347	0	634	585
Grp Sat Flow(s),veh/h/ln	284	1702	1840	584	1702	1867	1781	1777	1829	0	1777	1624
Q Serve(g_s), s	29.6	10.6	10.6	4.5	22.9	22.9	4.4	14.4	14.4	0.0	29.0	29.0
Cycle Q Clear(g_c), s	52.5	10.6	10.6	15.1	22.9	22.9	4.4	14.4	14.4	0.0	29.0	29.0
Prop In Lane	1.00		0.07	1.00		0.01	1.00		0.08	0.00		0.67
Lane Grp Cap(c), veh/h	156	1787	966	317	1787	980	89	684	704	0	515	471
V/C Ratio(X)	0.74	0.35	0.35	0.13	0.62	0.62	0.89	0.49	0.49	0.00	1.23	1.24
Avail Cap(c_a), veh/h	156	1787	966	317	1787	980	89	684	704	0	515	471
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	0.40	0.40	0.40	1.00	1.00	1.00	0.00	0.74	0.74
Uniform Delay (d), s/veh	39.3	13.8	13.8	18.2	16.7	16.7	47.2	23.3	23.3	0.0	21.0	21.0
Incr Delay (d2), s/veh	17.4	0.1	0.2	0.1	0.3	0.5	59.9	2.5	2.5	0.0	116.3	121.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	3.9	4.3	0.6	8.5	9.4	3.4	6.4	6.5	0.0	23.9	22.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.7	13.9	14.0	18.3	17.0	17.2	107.1	25.8	25.8	0.0	137.3	142.7
LnGrp LOS	E	B	B	B	B	B	F	C	C	A	F	F
Approach Vol, veh/h		1074			1758			762			1219	
Approach Delay, s/veh		18.6			17.1			34.2			139.9	
Approach LOS		B			B			C			F	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		43.0		57.0	9.5	33.5		57.0				
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		38.0		52.5	5.0	28.5		52.5				
Max Q Clear Time (g_c+I1), s		16.4		54.5	6.4	31.0		24.9				
Green Ext Time (p_c), s		4.3		0.0	0.0	0.0		15.5				
Intersection Summary												
HCM 6th Ctrl Delay				51.2								
HCM 6th LOS				D								

HCM 6th Signalized Intersection Summary

17: San Vicente Bd

12/07/2020

























												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑↑			↑↑↑			↑↑↑		↑	↑↑↑	
Traffic Volume (veh/h)	0	799	164	0	1361	518	0	722	0	207	1128	4
Future Volume (veh/h)	0	799	164	0	1361	518	0	722	0	207	1128	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870	0	1870	0	1870	1870	1870
Adj Flow Rate, veh/h	0	868	178	0	1479	563	0	785	0	225	1226	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2	0	2	0	2	2	2
Cap, veh/h	0	1962	400	0	1693	631	0	1642	0	259	2342	8
Arrive On Green	0.00	0.46	0.46	0.00	0.46	0.46	0.00	0.26	0.00	0.15	0.45	0.45
Sat Flow, veh/h	0	4396	861	0	3815	1358	0	6958	0	1781	5254	17
Grp Volume(v), veh/h	0	698	348	0	1379	663	0	785	0	225	794	436
Grp Sat Flow(s),veh/h/ln	0	1702	1685	0	1702	1601	0	1609	0	1781	1702	1867
Q Serve(g_s), s	0.0	13.8	14.0	0.0	36.5	37.9	0.0	10.4	0.0	12.4	16.9	16.9
Cycle Q Clear(g_c), s	0.0	13.8	14.0	0.0	36.5	37.9	0.0	10.4	0.0	12.4	16.9	16.9
Prop In Lane	0.00		0.51	0.00		0.85	0.00		0.00	1.00		0.01
Lane Grp Cap(c), veh/h	0	1580	782	0	1580	743	0	1642	0	259	1518	832
V/C Ratio(X)	0.00	0.44	0.45	0.00	0.87	0.89	0.00	0.48	0.00	0.87	0.52	0.52
Avail Cap(c_a), veh/h	0	1617	800	0	1617	760	0	1642	0	330	1518	832
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.94	0.94	0.00	1.00	1.00	0.00	0.96	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	18.1	18.1	0.0	24.1	24.5	0.0	31.6	0.0	41.8	20.0	20.0
Incr Delay (d2), s/veh	0.0	0.2	0.4	0.0	5.5	12.8	0.0	1.0	0.0	17.6	1.3	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.3	5.3	0.0	15.1	16.2	0.0	4.1	0.0	6.6	6.8	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	18.2	18.5	0.0	29.6	37.3	0.0	32.6	0.0	59.4	21.3	22.4
LnGrp LOS	A	B	B	A	C	D	A	C	A	E	C	C
Approach Vol, veh/h		1046			2042			785			1455	
Approach Delay, s/veh		18.3			32.1			32.6			27.5	
Approach LOS		B			C			C			C	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		49.1		50.9	19.1	30.0		50.9				
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		43.0		47.5	18.5	20.0		47.5				
Max Q Clear Time (g_c+I1), s		18.9		16.0	14.4	12.4		39.9				
Green Ext Time (p_c), s		9.3		8.5	0.2	3.2		6.5				
Intersection Summary												
HCM 6th Ctrl Delay			28.2									
HCM 6th LOS			C									

WITH PROJECT AM PEAK HOUR

HCM 6th Signalized Intersection Summary

2: Wilshire Bd





















12/07/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	632	85	102	1347	192	191	823	69	121	1125	295
Future Volume (veh/h)	112	632	85	102	1347	192	191	823	69	121	1125	295
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.88	0.98		0.88	1.00		0.92	1.00		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	122	687	92	111	1464	209	208	895	75	132	1223	321
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	237	1009	397	308	999	393	252	954	80	139	1029	534
Arrive On Green	0.07	0.28	0.28	0.07	0.28	0.28	0.08	0.29	0.29	0.08	0.29	0.29
Sat Flow, veh/h	1781	3554	1399	1781	3554	1396	1781	3294	276	1781	3554	1461
Grp Volume(v), veh/h	122	687	92	111	1464	209	208	483	487	132	1223	321
Grp Sat Flow(s),veh/h/ln	1781	1777	1399	1781	1777	1396	1781	1777	1794	1781	1777	1461
Q Serve(g_s), s	3.1	11.0	3.2	2.8	18.0	8.1	5.0	17.0	17.0	4.7	18.5	11.5
Cycle Q Clear(g_c), s	3.1	11.0	3.2	2.8	18.0	8.1	5.0	17.0	17.0	4.7	18.5	11.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	237	1009	397	308	999	393	252	514	519	139	1029	534
V/C Ratio(X)	0.51	0.68	0.23	0.36	1.46	0.53	0.83	0.94	0.94	0.95	1.19	0.60
Avail Cap(c_a), veh/h	252	1009	397	328	999	393	252	514	519	139	1029	534
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.0	20.3	17.6	15.6	23.0	19.4	17.9	22.2	22.2	29.4	22.7	16.8
Incr Delay (d2), s/veh	1.7	1.9	0.3	0.7	214.7	1.4	17.3	24.2	24.1	60.6	94.9	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	4.5	1.0	1.1	36.7	2.6	3.2	9.9	10.0	4.3	20.6	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.7	22.2	17.9	16.3	237.7	20.8	35.2	46.4	46.3	90.0	117.7	21.8
LnGrp LOS	B	C	B	B	F	C	D	D	D	F	F	C
Approach Vol, veh/h		901			1784			1178			1676	
Approach Delay, s/veh		21.3			198.5			44.4			97.1	
Approach LOS		C			F			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	23.0	8.8	22.7	9.5	23.0	9.0	22.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	6.7	19.0	4.8	13.0	7.0	20.5	5.1	20.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			106.2									
HCM 6th LOS			F									
Notes												
User approved changes to right turn type.												

HCM Signalized Intersection Capacity Analysis

3: Del Valle Dr/8th St













12/07/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	23	0	241	0	273	0	818	106	78	1077	0
Future Volume (vph)	21	23	0	241	0	273	0	818	106	78	1077	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5	4.5		4.5		4.5	4.5	
Lane Util. Factor		1.00		0.95	0.91	0.95		0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	0.99	0.98		1.00		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00		1.00		0.99	1.00	
Frt		1.00		1.00	0.91	0.85		0.98		1.00	1.00	
Flt Protected		0.98		0.95	0.98	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		1817		1681	1493	1478		3478		1756	3539	
Flt Permitted		0.83		0.73	0.87	1.00		1.00		0.23	1.00	
Satd. Flow (perm)		1538		1284	1320	1478		3478		428	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	23	25	0	262	0	297	0	889	115	85	1171	0
RTOR Reduction (vph)	0	0	0	0	40	40	0	18	0	0	0	0
Lane Group Flow (vph)	0	48	0	191	147	141	0	986	0	85	1171	0
Confl. Peds. (#/hr)	5					5				28		6
Confl. Bikes (#/hr)						2						6
Turn Type	Perm	NA		Perm	NA	Perm		NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8				6		
Actuated Green, G (s)		12.5		12.5	12.5	12.5		23.5		23.5	23.5	
Effective Green, g (s)		12.5		12.5	12.5	12.5		23.5		23.5	23.5	
Actuated g/C Ratio		0.28		0.28	0.28	0.28		0.52		0.52	0.52	
Clearance Time (s)		4.5		4.5	4.5	4.5		4.5		4.5	4.5	
Vehicle Extension (s)		3.0		3.0	3.0	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)		427		356	366	410		1816		223	1848	
v/s Ratio Prot								0.28			c0.33	
v/s Ratio Perm		0.03		c0.15	0.11	0.10				0.20		
v/c Ratio		0.11		0.54	0.40	0.34		0.54		0.38	0.63	
Uniform Delay, d1		12.1		13.8	13.2	13.0		7.2		6.4	7.7	
Progression Factor		1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		0.1		1.6	0.7	0.5		1.2		4.9	1.7	
Delay (s)		12.2		15.3	13.9	13.5		8.3		11.3	9.3	
Level of Service		B		B	B	B		A		B	A	
Approach Delay (s)		12.2			14.3			8.3			9.5	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM 2000 Control Delay		10.1						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.60										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		9.0		
Intersection Capacity Utilization		56.2%						ICU Level of Service		B		
Analysis Period (min)		15										
c Critical Lane Group												

HCM 6th Signalized Intersection Summary

4: San Vicente Bd


























12/07/2020

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑		↰	↑↑	↱	↰	↑↑↑	↱		↑↑↑	↱
Traffic Volume (veh/h)	0	728	0	122	1053	110	30	586	63	0	1496	101
Future Volume (veh/h)	0	728	0	122	1053	110	30	586	63	0	1496	101
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	0	1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	791	0	133	1145	120	33	637	68	0	1626	110
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	0	2	2	2	2	2	2	0	2	2
Cap, veh/h	0	1281	0	164	1767	764	111	2656	654	0	2108	641
Arrive On Green	0.00	0.72	0.00	0.09	0.50	0.50	0.41	0.41	0.41	0.00	0.41	0.41
Sat Flow, veh/h	0	3741	0	1781	3554	1537	279	6434	1585	0	5274	1553
Grp Volume(v), veh/h	0	791	0	133	1145	120	33	637	68	0	1626	110
Grp Sat Flow(s),veh/h/ln	0	1777	0	1781	1777	1537	279	1609	1585	0	1702	1553
Q Serve(g_s), s	0.0	11.2	0.0	7.3	23.9	4.3	11.6	6.5	2.6	0.0	27.4	4.5
Cycle Q Clear(g_c), s	0.0	11.2	0.0	7.3	23.9	4.3	39.0	6.5	2.6	0.0	27.4	4.5
Prop In Lane	0.00		0.00	1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	0	1281	0	164	1767	764	111	2656	654	0	2108	641
V/C Ratio(X)	0.00	0.62	0.00	0.81	0.65	0.16	0.30	0.24	0.10	0.00	0.77	0.17
Avail Cap(c_a), veh/h	0	1281	0	223	1767	764	111	2670	658	0	2119	645
HCM Platoon Ratio	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.70	0.00	0.75	0.75	0.75	1.00	1.00	1.00	0.00	0.82	0.82
Uniform Delay (d), s/veh	0.0	10.5	0.0	44.6	18.6	13.7	42.1	19.1	18.0	0.0	25.3	18.6
Incr Delay (d2), s/veh	0.0	1.6	0.0	11.6	1.4	0.3	1.5	0.0	0.1	0.0	1.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.1	0.0	3.7	9.7	1.5	0.8	2.4	1.0	0.0	11.0	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	12.1	0.0	56.2	20.0	14.0	43.6	19.2	18.1	0.0	26.8	18.7
LnGrp LOS	A	B	A	E	C	B	D	B	B	A	C	B
Approach Vol, veh/h		791			1398			738			1736	
Approach Delay, s/veh		12.1			23.0			20.2			26.3	
Approach LOS		B			C			C			C	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	13.7	40.5		45.8		54.2		45.8				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	12.5	32.0		41.5		49.0		41.5				
Max Q Clear Time (g_c+I1), s	9.3	13.2		41.0		25.9		29.4				
Green Ext Time (p_c), s	0.1	5.4		0.3		9.7		8.6				
Intersection Summary												
HCM 6th Ctrl Delay				21.9								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

5: Fairfax Ave & Olympic Ave













12/07/2020

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		  			  			 			 		
Traffic Volume (veh/h)	111	860	21	39	1575	4	73	606	27	0	769	366	
Future Volume (veh/h)	111	860	21	39	1575	4	73	606	27	0	769	366	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.95	1.00		0.93	1.00		0.96	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No			No			No			No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	
Adj Flow Rate, veh/h	121	935	23	42	1712	4	79	659	29	0	836	398	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	0	2	2	
Cap, veh/h	156	2687	66	317	2761	6	89	1330	58	0	669	316	
Arrive On Green	0.52	0.52	0.52	0.52	0.52	0.52	0.05	0.38	0.38	0.00	0.58	0.58	
Sat Flow, veh/h	284	5119	126	584	5259	12	1781	3455	152	0	2402	1091	
Grp Volume(v), veh/h	121	621	337	42	1108	608	79	339	349	0	642	592	
Grp Sat Flow(s),veh/h/ln	284	1702	1840	584	1702	1867	1781	1777	1830	0	1777	1622	
Q Serve(g_s), s	29.6	10.6	10.6	4.5	22.9	22.9	4.4	14.5	14.5	0.0	29.0	29.0	
Cycle Q Clear(g_c), s	52.5	10.6	10.6	15.1	22.9	22.9	4.4	14.5	14.5	0.0	29.0	29.0	
Prop In Lane	1.00		0.07	1.00		0.01	1.00		0.08	0.00		0.67	
Lane Grp Cap(c), veh/h	156	1787	966	317	1787	980	89	684	704	0	515	470	
V/C Ratio(X)	0.78	0.35	0.35	0.13	0.62	0.62	0.89	0.50	0.50	0.00	1.25	1.26	
Avail Cap(c_a), veh/h	156	1787	966	317	1787	980	89	684	704	0	515	470	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	
Upstream Filter(I)	1.00	1.00	1.00	0.40	0.40	0.40	1.00	1.00	1.00	0.00	0.75	0.75	
Uniform Delay (d), s/veh	39.7	13.8	13.8	18.2	16.7	16.7	47.2	23.4	23.4	0.0	21.0	21.0	
Incr Delay (d2), s/veh	21.4	0.1	0.2	0.1	0.3	0.5	59.9	2.6	2.5	0.0	122.7	128.7	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	3.9	3.9	4.3	0.6	8.5	9.4	3.4	6.4	6.6	0.0	24.8	23.4	
Unsig. Movement Delay, s/veh													
LnGrp Delay(d),s/veh	61.1	13.9	14.0	18.3	17.0	17.2	107.1	25.9	25.9	0.0	143.7	149.7	
LnGrp LOS	E	B	B	B	B	B	F	C	C	A	F	F	
Approach Vol, veh/h	1079			1758				767			1234		
Approach Delay, s/veh	19.2			17.1				34.3			146.6		
Approach LOS	B			B				C			F		
Timer - Assigned Phs	2			4		5	6	8					
Phs Duration (G+Y+Rc), s	43.0			57.0		9.5	33.5	57.0					
Change Period (Y+Rc), s	4.5			4.5		4.5	4.5	4.5					
Max Green Setting (Gmax), s	38.0			52.5		5.0	28.5	52.5					
Max Q Clear Time (g_c+I1), s	16.5			54.5		6.4	31.0	24.9					
Green Ext Time (p_c), s	4.3			0.0		0.0	0.0	15.5					
Intersection Summary													
HCM 6th Ctrl Delay	53.3												
HCM 6th LOS	D												

HCM 6th Signalized Intersection Summary

17: San Vicente Bd

12/07/2020
























												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑↑			↑↑↑			↑↑↑		↑	↑↑↑	
Traffic Volume (veh/h)	0	799	164	0	1361	521	0	729	0	207	1129	4
Future Volume (veh/h)	0	799	164	0	1361	521	0	729	0	207	1129	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870	0	1870	0	1870	1870	1870
Adj Flow Rate, veh/h	0	868	178	0	1479	566	0	792	0	225	1227	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2	0	2	0	2	2	2
Cap, veh/h	0	1964	400	0	1691	633	0	1640	0	259	2341	8
Arrive On Green	0.00	0.46	0.46	0.00	0.46	0.46	0.00	0.25	0.00	0.15	0.45	0.45
Sat Flow, veh/h	0	4396	861	0	3809	1363	0	6958	0	1781	5254	17
Grp Volume(v), veh/h	0	698	348	0	1381	664	0	792	0	225	795	436
Grp Sat Flow(s),veh/h/ln	0	1702	1685	0	1702	1600	0	1609	0	1781	1702	1867
Q Serve(g_s), s	0.0	13.8	13.9	0.0	36.5	38.0	0.0	10.5	0.0	12.4	16.9	16.9
Cycle Q Clear(g_c), s	0.0	13.8	13.9	0.0	36.5	38.0	0.0	10.5	0.0	12.4	16.9	16.9
Prop In Lane	0.00		0.51	0.00		0.85	0.00		0.00	1.00		0.01
Lane Grp Cap(c), veh/h	0	1581	783	0	1581	743	0	1640	0	259	1517	832
V/C Ratio(X)	0.00	0.44	0.44	0.00	0.87	0.89	0.00	0.48	0.00	0.87	0.52	0.52
Avail Cap(c_a), veh/h	0	1617	800	0	1617	760	0	1640	0	330	1517	832
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.94	0.94	0.00	1.00	1.00	0.00	0.96	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	18.0	18.1	0.0	24.1	24.5	0.0	31.7	0.0	41.8	20.1	20.1
Incr Delay (d2), s/veh	0.0	0.2	0.4	0.0	5.5	12.9	0.0	1.0	0.0	17.6	1.3	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.3	5.3	0.0	15.1	16.3	0.0	4.1	0.0	6.6	6.8	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	18.2	18.4	0.0	29.6	37.4	0.0	32.6	0.0	59.4	21.4	22.4
LnGrp LOS	A	B	B	A	C	D	A	C	A	E	C	C
Approach Vol, veh/h		1046			2045			792			1456	
Approach Delay, s/veh		18.3			32.2			32.6			27.5	
Approach LOS		B			C			C			C	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		49.1		50.9	19.1	30.0		50.9				
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		43.0		47.5	18.5	20.0		47.5				
Max Q Clear Time (g_c+I1), s		18.9		15.9	14.4	12.5		40.0				
Green Ext Time (p_c), s		9.3		8.5	0.2	3.2		6.4				
Intersection Summary												
HCM 6th Ctrl Delay				28.3								
HCM 6th LOS				C								

PM PEAK HOUR WITHOUT PROJECT

HCM 6th Signalized Intersection Summary

2: Wilshire Bd




















12/07/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	174	1233	184	82	785	231	147	661	65	200	1147	218
Future Volume (veh/h)	174	1233	184	82	785	231	147	661	65	200	1147	218
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.89	1.00		0.88	1.00		0.92	1.00		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	189	1340	200	89	853	251	160	718	71	217	1247	237
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	278	1052	416	223	995	391	252	915	90	139	1004	536
Arrive On Green	0.08	0.30	0.30	0.06	0.28	0.28	0.08	0.28	0.28	0.08	0.28	0.28
Sat Flow, veh/h	1781	3554	1406	1781	3554	1396	1781	3238	320	1781	3554	1459
Grp Volume(v), veh/h	189	1340	200	89	853	251	160	394	395	217	1247	237
Grp Sat Flow(s),veh/h/ln	1781	1777	1406	1781	1777	1396	1781	1777	1781	1781	1777	1459
Q Serve(g_s), s	4.9	18.9	7.5	2.2	14.6	10.1	4.0	13.1	13.1	5.0	18.1	7.9
Cycle Q Clear(g_c), s	4.9	18.9	7.5	2.2	14.6	10.1	4.0	13.1	13.1	5.0	18.1	7.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	278	1052	416	223	995	391	252	502	503	139	1004	536
V/C Ratio(X)	0.68	1.27	0.48	0.40	0.86	0.64	0.64	0.78	0.79	1.56	1.24	0.44
Avail Cap(c_a), veh/h	278	1052	416	252	999	393	252	502	503	139	1004	536
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	0.90	0.90	0.90	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.0	22.5	18.5	17.1	21.8	20.2	16.9	21.2	21.2	29.5	23.0	15.6
Incr Delay (d2), s/veh	6.5	130.8	0.9	1.2	7.5	3.5	4.7	10.6	10.6	283.7	117.4	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	26.3	2.3	0.9	6.6	3.4	1.8	6.5	6.5	13.0	23.3	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.6	153.3	19.4	18.2	29.3	23.8	21.6	31.7	31.8	313.2	140.3	18.3
LnGrp LOS	C	F	B	B	C	C	C	C	C	F	F	B
Approach Vol, veh/h	1729				1193				949			
Approach Delay, s/veh	123.6				27.3				30.1			
Approach LOS	F				C				C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	22.6	8.5	23.4	9.5	22.6	9.5	22.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+l1), s	7.0	15.1	4.2	20.9	6.0	20.1	6.9	16.6				
Green Ext Time (p_c), s	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.9				
Intersection Summary												
HCM 6th Ctrl Delay	93.7											
HCM 6th LOS	F											
Notes												

HCM Signalized Intersection Capacity Analysis

3: Del Valle Dr/8th St













12/07/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	232	19	146	0	67	0	730	91	299	1261	0
Future Volume (vph)	8	232	19	146	0	67	0	730	91	299	1261	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5	4.5		4.5		4.5	4.5	
Lane Util. Factor		1.00		0.95	0.91	0.95		0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	1.00	0.98		1.00		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00		1.00		0.99	1.00	
Frt		0.99		1.00	0.99	0.85		0.98		1.00	1.00	
Flt Protected		1.00		0.95	0.96	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		1841		1681	1598	1478		3480		1753	3539	
Flt Permitted		0.99		0.52	0.58	1.00		1.00		0.28	1.00	
Satd. Flow (perm)		1827		925	961	1478		3480		517	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	252	21	159	0	73	0	793	99	325	1371	0
RTOR Reduction (vph)	0	7	0	0	26	48	0	17	0	0	0	0
Lane Group Flow (vph)	0	275	0	83	57	18	0	875	0	325	1371	0
Confl. Peds. (#/hr)	5					5				28		6
Confl. Bikes (#/hr)						2						6
Turn Type	Perm	NA		Perm	NA	Perm		NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8				6		
Actuated Green, G (s)		12.0		12.0	12.0	12.0		24.0		24.0	24.0	
Effective Green, g (s)		12.0		12.0	12.0	12.0		24.0		24.0	24.0	
Actuated g/C Ratio		0.27		0.27	0.27	0.27		0.53		0.53	0.53	
Clearance Time (s)		4.5		4.5	4.5	4.5		4.5		4.5	4.5	
Vehicle Extension (s)		3.0		3.0	3.0	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)		487		246	256	394		1856		275	1887	
v/s Ratio Prot								0.25			0.39	
v/s Ratio Perm		c0.15		0.09	0.06	0.01				c0.63		
v/c Ratio		0.57		0.34	0.22	0.04		0.47		1.18	0.73	
Uniform Delay, d1		14.2		13.3	12.9	12.2		6.5		10.5	8.0	
Progression Factor		1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		1.5		0.8	0.4	0.0		0.9		112.7	2.5	
Delay (s)		15.8		14.1	13.3	12.3		7.4		123.2	10.5	
Level of Service		B		B	B	B		A		F	B	
Approach Delay (s)		15.8			13.3			7.4			32.1	
Approach LOS		B			B			A			C	
Intersection Summary												
HCM 2000 Control Delay			22.1				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.97									
Actuated Cycle Length (s)			45.0				Sum of lost time (s)			9.0		
Intersection Capacity Utilization			74.8%				ICU Level of Service			D		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary

4: San Vicente Bd




















12/07/2020

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑		↰	↑↑	↱	↰	↑↑↑	↱		↑↑↑	↱
Traffic Volume (veh/h)	0	649	0	257	1070	59	24	929	47	0	732	132
Future Volume (veh/h)	0	649	0	257	1070	59	24	929	47	0	732	132
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	0	1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	705	0	279	1163	64	26	1010	51	0	796	143
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	0	2	2	2	2	2	2	0	2	2
Cap, veh/h	0	1592	0	317	2385	1037	124	1537	379	0	1220	369
Arrive On Green	0.00	0.90	0.00	0.18	0.67	0.67	0.24	0.24	0.24	0.00	0.08	0.08
Sat Flow, veh/h	0	3741	0	1781	3554	1545	596	6434	1585	0	5274	1544
Grp Volume(v), veh/h	0	705	0	279	1163	64	26	1010	51	0	796	143
Grp Sat Flow(s),veh/h/ln	0	1777	0	1781	1777	1545	596	1609	1585	0	1702	1544
Q Serve(g_s), s	0.0	3.4	0.0	15.3	16.0	1.4	4.2	14.2	2.5	0.0	15.1	8.8
Cycle Q Clear(g_c), s	0.0	3.4	0.0	15.3	16.0	1.4	19.3	14.2	2.5	0.0	15.1	8.8
Prop In Lane	0.00		0.00	1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	0	1592	0	317	2385	1037	124	1537	379	0	1220	369
V/C Ratio(X)	0.00	0.44	0.00	0.88	0.49	0.06	0.21	0.66	0.13	0.00	0.65	0.39
Avail Cap(c_a), veh/h	0	1592	0	472	2385	1037	134	1641	404	0	1302	394
HCM Platoon Ratio	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33
Upstream Filter(l)	0.00	0.89	0.00	0.64	0.64	0.64	1.00	1.00	1.00	0.00	0.97	0.97
Uniform Delay (d), s/veh	0.0	3.1	0.0	40.0	8.0	5.6	43.5	34.4	29.9	0.0	42.0	39.1
Incr Delay (d2), s/veh	0.0	0.8	0.0	8.2	0.5	0.1	0.8	0.9	0.2	0.0	1.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.0	0.0	7.3	5.5	0.4	0.6	5.6	1.0	0.0	7.0	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	3.9	0.0	48.3	8.5	5.7	44.4	35.2	30.1	0.0	43.1	39.8
LnGrp LOS	A	A	A	D	A	A	D	D	C	A	D	D
Approach Vol, veh/h		705			1506			1087			939	
Approach Delay, s/veh		3.9			15.7			35.2			42.6	
Approach LOS		A			B			D			D	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	22.3	49.3		28.4		71.6		28.4				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	26.5	34.0		25.5		65.0		25.5				
Max Q Clear Time (g_c+I1), s	17.3	5.4		21.3		18.0		17.1				
Green Ext Time (p_c), s	0.6	5.4		2.6		12.1		3.8				
Intersection Summary												
HCM 6th Ctrl Delay				24.7								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary













5: Fairfax Ave & Olympic Ave

12/07/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	1487	17	67	1097	4	32	542	72	2	919	237
Future Volume (veh/h)	99	1487	17	67	1097	4	32	542	72	2	919	237
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.94	1.00		0.94	0.98		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	108	1616	18	73	1192	4	35	589	78	2	999	258
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	180	2107	23	114	2127	7	55	1581	209	36	1157	297
Arrive On Green	0.41	0.41	0.41	0.41	0.41	0.41	0.03	0.50	0.50	0.86	0.86	0.86
Sat Flow, veh/h	468	5202	58	307	5252	18	1781	3131	413	1	2699	691
Grp Volume(v), veh/h	108	1057	577	73	773	423	35	334	333	691	0	568
Grp Sat Flow(s),veh/h/ln	468	1702	1856	307	1702	1866	1781	1777	1767	1869	0	1522
Q Serve(g_s), s	23.0	26.8	26.8	13.7	17.5	17.5	1.9	11.4	11.5	0.0	0.0	20.9
Cycle Q Clear(g_c), s	40.5	26.8	26.8	40.5	17.5	17.5	1.9	11.4	11.5	20.1	0.0	20.9
Prop In Lane	1.00		0.03	1.00		0.01	1.00		0.23	0.00		0.45
Lane Grp Cap(c), veh/h	180	1379	752	114	1379	756	55	897	892	838	0	653
V/C Ratio(X)	0.60	0.77	0.77	0.64	0.56	0.56	0.63	0.37	0.37	0.83	0.00	0.87
Avail Cap(c_a), veh/h	180	1379	752	114	1379	756	89	897	892	838	0	653
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	0.75	0.75	0.75	1.00	1.00	1.00	0.88	0.00	0.88
Uniform Delay (d), s/veh	38.5	25.7	25.7	46.1	22.9	22.9	47.9	15.1	15.1	5.5	0.0	5.5
Incr Delay (d2), s/veh	5.5	2.7	4.8	8.7	0.4	0.7	11.3	1.2	1.2	8.1	0.0	13.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	11.0	12.4	2.1	6.9	7.6	1.0	4.8	4.8	4.3	0.0	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.0	28.3	30.5	54.7	23.3	23.6	59.2	16.3	16.3	13.6	0.0	18.8
LnGrp LOS	D	C	C	D	C	C	E	B	B	B	A	B
Approach Vol, veh/h	1742			1269			702			1259		
Approach Delay, s/veh	30.0			25.2			18.4			15.9		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	2			4		5	6	8				
Phs Duration (G+Y+Rc), s	55.0			45.0		7.6	47.4	45.0				
Change Period (Y+Rc), s	4.5			4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	50.0			40.5		5.0	40.5	40.5				
Max Q Clear Time (g_c+I1), s	13.5			42.5		3.9	22.9	42.5				
Green Ext Time (p_c), s	4.7			0.0		0.0	8.6	0.0				
Intersection Summary												
HCM 6th Ctrl Delay	23.6											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary
17: San Vicente Bd

12/07/2020

























												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑↑			↑↑↑			↑↑↑		↑	↑↑↑	
Traffic Volume (veh/h)	0	1312	266	0	1015	234	0	1176	0	111	639	5
Future Volume (veh/h)	0	1312	266	0	1015	234	0	1176	0	111	639	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870	0	1870	0	1870	1870	1870
Adj Flow Rate, veh/h	0	1426	289	0	1103	254	0	1278	0	121	695	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2	0	2	0	2	2	2
Cap, veh/h	0	1753	354	0	1712	394	0	2355	0	151	2593	19
Arrive On Green	0.00	0.14	0.14	0.00	0.41	0.41	0.00	0.37	0.00	0.08	0.50	0.50
Sat Flow, veh/h	0	4401	856	0	4302	951	0	6958	0	1781	5230	38
Grp Volume(v), veh/h	0	1146	569	0	908	449	0	1278	0	121	452	248
Grp Sat Flow(s),veh/h/ln	0	1702	1684	0	1702	1681	0	1609	0	1781	1702	1864
Q Serve(g_s), s	0.0	32.7	32.8	0.0	21.3	21.3	0.0	15.7	0.0	6.7	7.7	7.7
Cycle Q Clear(g_c), s	0.0	32.7	32.8	0.0	21.3	21.3	0.0	15.7	0.0	6.7	7.7	7.7
Prop In Lane	0.00		0.51	0.00		0.57	0.00		0.00	1.00		0.02
Lane Grp Cap(c), veh/h	0	1410	697	0	1410	696	0	2355	0	151	1688	924
V/C Ratio(X)	0.00	0.81	0.82	0.00	0.64	0.64	0.00	0.54	0.00	0.80	0.27	0.27
Avail Cap(c_a), veh/h	0	1481	733	0	1481	731	0	2355	0	240	1688	924
HCM Platoon Ratio	1.00	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.51	0.51	0.00	1.00	1.00	0.00	0.67	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	39.4	39.5	0.0	23.4	23.4	0.0	25.1	0.0	44.9	14.7	14.7
Incr Delay (d2), s/veh	0.0	1.8	3.6	0.0	0.9	1.8	0.0	0.6	0.0	9.6	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	15.2	15.4	0.0	8.5	8.5	0.0	6.0	0.0	3.3	3.0	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	41.2	43.1	0.0	24.3	25.2	0.0	25.7	0.0	54.5	15.0	15.4
LnGrp LOS	A	D	D	A	C	C	A	C	A	D	B	B
Approach Vol, veh/h		1715			1357			1278			821	
Approach Delay, s/veh		41.8			24.6			25.7			21.0	
Approach LOS		D			C			C			C	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		54.1		45.9	13.0	41.1		45.9				
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		47.0		43.5	13.5	29.0		43.5				
Max Q Clear Time (g_c+I1), s		9.7		34.8	8.7	17.7		23.3				
Green Ext Time (p_c), s		5.2		6.6	0.1	6.6		9.8				
Intersection Summary												
HCM 6th Ctrl Delay			30.0									
HCM 6th LOS			C									

WITH PROJECT PM PEAK HOUR

HCM 6th Signalized Intersection Summary

2: Wilshire Bd




















12/07/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	174	1233	192	92	785	231	153	667	67	200	1156	218
Future Volume (veh/h)	174	1233	192	92	785	231	153	667	67	200	1156	218
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.89	0.99		0.88	1.00		0.92	1.00		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	189	1340	209	100	853	251	166	725	73	217	1257	237
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	278	1042	412	228	995	391	252	913	92	139	1004	536
Arrive On Green	0.08	0.29	0.29	0.06	0.28	0.28	0.08	0.28	0.28	0.08	0.28	0.28
Sat Flow, veh/h	1781	3554	1404	1781	3554	1396	1781	3231	325	1781	3554	1459
Grp Volume(v), veh/h	189	1340	209	100	853	251	166	398	400	217	1257	237
Grp Sat Flow(s),veh/h/ln	1781	1777	1404	1781	1777	1396	1781	1777	1779	1781	1777	1459
Q Serve(g_s), s	4.9	18.8	7.9	2.5	14.6	10.1	4.2	13.3	13.3	5.0	18.1	7.9
Cycle Q Clear(g_c), s	4.9	18.8	7.9	2.5	14.6	10.1	4.2	13.3	13.3	5.0	18.1	7.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	278	1042	412	228	995	391	252	502	503	139	1004	536
V/C Ratio(X)	0.68	1.29	0.51	0.44	0.86	0.64	0.66	0.79	0.79	1.56	1.25	0.44
Avail Cap(c_a), veh/h	278	1042	412	252	999	393	252	502	503	139	1004	536
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	0.90	0.90	0.90	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.0	22.6	18.8	17.1	21.8	20.2	17.0	21.2	21.2	29.5	23.0	15.6
Incr Delay (d2), s/veh	6.5	136.2	1.0	1.3	7.5	3.5	5.6	11.1	11.1	283.7	121.6	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	26.8	2.5	1.0	6.6	3.4	1.9	6.6	6.7	13.0	23.9	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.6	158.8	19.8	18.4	29.3	23.8	22.6	32.3	32.4	313.2	144.6	18.3
LnGrp LOS	C	F	B	B	C	C	C	C	C	F	F	B
Approach Vol, veh/h	1738				1204				964			
Approach Delay, s/veh	127.4				27.3				30.7			
Approach LOS	F				C				C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	22.6	8.7	23.3	9.5	22.6	9.5	22.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+l1), s	7.0	15.3	4.5	20.8	6.2	20.1	6.9	16.6				
Green Ext Time (p_c), s	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.9				
Intersection Summary												
HCM 6th Ctrl Delay	95.7											
HCM 6th LOS	F											
Notes												

HCM Signalized Intersection Capacity Analysis

3: Del Valle Dr/8th St













12/07/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	232	19	154	0	75	0	738	91	319	1261	0
Future Volume (vph)	8	232	19	154	0	75	0	738	91	319	1261	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5	4.5		4.5		4.5	4.5	
Lane Util. Factor		1.00		0.95	0.91	0.95		0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	1.00	0.98		1.00		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00		1.00		0.99	1.00	
Frt		0.99		1.00	0.99	0.85		0.98		1.00	1.00	
Flt Protected		1.00		0.95	0.96	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		1841		1681	1597	1478		3481		1753	3539	
Flt Permitted		0.99		0.52	0.57	1.00		1.00		0.28	1.00	
Satd. Flow (perm)		1827		925	944	1478		3481		510	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	252	21	167	0	82	0	802	99	347	1371	0
RTOR Reduction (vph)	0	7	0	0	26	54	0	16	0	0	0	0
Lane Group Flow (vph)	0	275	0	87	62	20	0	885	0	347	1371	0
Confl. Peds. (#/hr)	5					5				28		6
Confl. Bikes (#/hr)						2						6
Turn Type	Perm	NA		Perm	NA	Perm		NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8				6		
Actuated Green, G (s)		12.0		12.0	12.0	12.0		24.0		24.0	24.0	
Effective Green, g (s)		12.0		12.0	12.0	12.0		24.0		24.0	24.0	
Actuated g/C Ratio		0.27		0.27	0.27	0.27		0.53		0.53	0.53	
Clearance Time (s)		4.5		4.5	4.5	4.5		4.5		4.5	4.5	
Vehicle Extension (s)		3.0		3.0	3.0	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)		487		246	251	394		1856		272	1887	
v/s Ratio Prot								0.25			0.39	
v/s Ratio Perm		c0.15		0.09	0.07	0.01				c0.68		
v/c Ratio		0.57		0.35	0.25	0.05		0.48		1.28	0.73	
Uniform Delay, d1		14.2		13.4	12.9	12.3		6.6		10.5	8.0	
Progression Factor		1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		1.5		0.9	0.5	0.1		0.9		149.5	2.5	
Delay (s)		15.8		14.2	13.5	12.3		7.5		160.0	10.5	
Level of Service		B		B	B	B		A		F	B	
Approach Delay (s)		15.8			13.4			7.5			40.7	
Approach LOS		B			B			A			D	
Intersection Summary												
HCM 2000 Control Delay			26.8				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			1.04									
Actuated Cycle Length (s)			45.0				Sum of lost time (s)			9.0		
Intersection Capacity Utilization			76.4%				ICU Level of Service			D		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary

4: San Vicente Bd


























12/07/2020

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑		↰	↑↑	↱	↰	↑↑↑	↱		↑↑↑	↱
Traffic Volume (veh/h)	0	663	0	262	1079	59	24	929	47	0	732	139
Future Volume (veh/h)	0	663	0	262	1079	59	24	929	47	0	732	139
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	0	1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	721	0	285	1173	64	26	1010	51	0	796	151
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	0	2	2	2	2	2	2	0	2	2
Cap, veh/h	0	1578	0	324	2384	1036	124	1538	379	0	1221	369
Arrive On Green	0.00	0.89	0.00	0.18	0.67	0.67	0.24	0.24	0.24	0.00	0.08	0.08
Sat Flow, veh/h	0	3741	0	1781	3554	1545	592	6434	1585	0	5274	1544
Grp Volume(v), veh/h	0	721	0	285	1173	64	26	1010	51	0	796	151
Grp Sat Flow(s),veh/h/ln	0	1777	0	1781	1777	1545	592	1609	1585	0	1702	1544
Q Serve(g_s), s	0.0	3.8	0.0	15.6	16.2	1.4	4.2	14.2	2.5	0.0	15.1	9.3
Cycle Q Clear(g_c), s	0.0	3.8	0.0	15.6	16.2	1.4	19.3	14.2	2.5	0.0	15.1	9.3
Prop In Lane	0.00		0.00	1.00		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	0	1578	0	324	2384	1036	124	1538	379	0	1221	369
V/C Ratio(X)	0.00	0.46	0.00	0.88	0.49	0.06	0.21	0.66	0.13	0.00	0.65	0.41
Avail Cap(c_a), veh/h	0	1578	0	490	2384	1036	133	1641	404	0	1302	394
HCM Platoon Ratio	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33
Upstream Filter(I)	0.00	0.87	0.00	0.64	0.64	0.64	1.00	1.00	1.00	0.00	0.97	0.97
Uniform Delay (d), s/veh	0.0	3.3	0.0	39.8	8.1	5.6	43.5	34.3	29.9	0.0	42.0	39.3
Incr Delay (d2), s/veh	0.0	0.8	0.0	7.8	0.5	0.1	0.8	0.9	0.2	0.0	1.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.1	0.0	7.4	5.6	0.4	0.6	5.6	1.0	0.0	7.0	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	4.1	0.0	47.7	8.5	5.7	44.4	35.2	30.1	0.0	43.1	40.0
LnGrp LOS	A	A	A	D	A	A	D	D	C	A	D	D
Approach Vol, veh/h		721			1522			1087			947	
Approach Delay, s/veh		4.1			15.8			35.2			42.6	
Approach LOS		A			B			D			D	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	22.7	48.9		28.4		71.6		28.4				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	27.5	33.0		25.5		65.0		25.5				
Max Q Clear Time (g_c+I1), s	17.6	5.8		21.3		18.2		17.1				
Green Ext Time (p_c), s	0.6	5.5		2.6		12.2		3.8				
Intersection Summary												
HCM 6th Ctrl Delay				24.7								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary













5: Fairfax Ave & Olympic Ave

12/07/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	106	1487	17	67	1097	4	32	542	72	0	924	241
Future Volume (veh/h)	106	1487	17	67	1097	4	32	542	72	0	924	241
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.95	1.00		0.94	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	115	1616	18	73	1192	4	35	589	78	0	1004	262
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	0	2	2
Cap, veh/h	204	2315	26	132	2337	8	55	1455	192	0	1077	280
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.03	0.47	0.47	0.00	0.78	0.78
Sat Flow, veh/h	468	5202	58	307	5252	18	1781	3129	413	0	2864	719
Grp Volume(v), veh/h	115	1057	577	73	773	423	35	334	333	0	642	624
Grp Sat Flow(s),veh/h/ln	468	1702	1856	307	1702	1866	1781	1777	1765	0	1777	1713
Q Serve(g_s), s	23.4	25.0	25.0	19.5	16.3	16.3	1.9	12.4	12.5	0.0	29.0	29.8
Cycle Q Clear(g_c), s	39.7	25.0	25.0	44.5	16.3	16.3	1.9	12.4	12.5	0.0	29.0	29.8
Prop In Lane	1.00		0.03	1.00		0.01	1.00		0.23	0.00		0.42
Lane Grp Cap(c), veh/h	204	1515	826	132	1515	830	55	826	821	0	691	666
V/C Ratio(X)	0.56	0.70	0.70	0.55	0.51	0.51	0.63	0.40	0.41	0.00	0.93	0.94
Avail Cap(c_a), veh/h	204	1515	826	132	1515	830	89	826	821	0	691	666
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	0.75	0.75	0.75	1.00	1.00	1.00	0.00	0.87	0.87
Uniform Delay (d), s/veh	34.2	22.3	22.3	42.0	19.9	19.9	47.9	17.6	17.6	0.0	10.0	10.1
Incr Delay (d2), s/veh	3.5	1.4	2.6	3.7	0.2	0.4	11.3	1.5	1.5	0.0	18.7	20.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	9.9	11.1	2.0	6.3	6.9	1.0	5.2	5.3	0.0	7.4	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.7	23.8	24.9	45.7	20.1	20.3	59.2	19.1	19.1	0.0	28.7	30.4
LnGrp LOS	D	C	C	D	C	C	E	B	B	A	C	C
Approach Vol, veh/h	1749			1269			702			1266		
Approach Delay, s/veh	25.1			21.7			21.1			29.5		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	2			4		5		6		8		
Phs Duration (G+Y+Rc), s	51.0			49.0		7.6		43.4		49.0		
Change Period (Y+Rc), s	4.5			4.5		4.5		4.5		4.5		
Max Green Setting (Gmax), s	46.0			44.5		5.0		36.5		44.5		
Max Q Clear Time (g_c+I1), s	14.5			41.7		3.9		31.8		46.5		
Green Ext Time (p_c), s	4.6			2.4		0.0		3.2		0.0		
Intersection Summary												
HCM 6th Ctrl Delay	24.8											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary 17: San Vicente Bd

12/07/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑↑			↑↑↑			↑↑↑		↑	↑↑↑	
Traffic Volume (veh/h)	0	1312	266	0	1015	238	0	1181	0	111	642	5
Future Volume (veh/h)	0	1312	266	0	1015	238	0	1181	0	111	642	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870	0	1870	0	1870	1870	1870
Adj Flow Rate, veh/h	0	1426	289	0	1103	259	0	1284	0	121	698	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2	0	2	0	2	2	2
Cap, veh/h	0	1713	346	0	1666	391	0	2416	0	151	2643	19
Arrive On Green	0.00	0.40	0.40	0.00	0.40	0.40	0.00	0.38	0.00	0.08	0.51	0.51
Sat Flow, veh/h	0	4400	856	0	4284	966	0	6958	0	1781	5230	37
Grp Volume(v), veh/h	0	1146	569	0	912	450	0	1284	0	121	454	249
Grp Sat Flow(s),veh/h/ln	0	1702	1683	0	1702	1678	0	1609	0	1781	1702	1864
Q Serve(g_s), s	0.0	30.2	30.4	0.0	21.8	21.8	0.0	15.6	0.0	6.7	7.6	7.6
Cycle Q Clear(g_c), s	0.0	30.2	30.4	0.0	21.8	21.8	0.0	15.6	0.0	6.7	7.6	7.6
Prop In Lane	0.00		0.51	0.00		0.58	0.00		0.00	1.00		0.02
Lane Grp Cap(c), veh/h	0	1378	681	0	1378	679	0	2416	0	151	1720	942
V/C Ratio(X)	0.00	0.83	0.83	0.00	0.66	0.66	0.00	0.53	0.00	0.80	0.26	0.26
Avail Cap(c_a), veh/h	0	1481	732	0	1481	730	0	2416	0	240	1720	942
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.62	0.62	0.00	1.00	1.00	0.00	0.67	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	26.7	26.8	0.0	24.2	24.2	0.0	24.4	0.0	44.9	14.1	14.1
Incr Delay (d2), s/veh	0.0	2.5	5.0	0.0	1.0	2.0	0.0	0.6	0.0	9.6	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	12.3	12.7	0.0	8.7	8.8	0.0	5.9	0.0	3.3	2.9	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	29.2	31.8	0.0	25.2	26.3	0.0	24.9	0.0	54.5	14.5	14.8
LnGrp LOS	A	C	C	A	C	C	A	C	A	D	B	B
Approach Vol, veh/h		1715			1362			1284			824	
Approach Delay, s/veh		30.1			25.6			24.9			20.5	
Approach LOS		C			C			C			C	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		55.0		45.0	13.0	42.1		45.0				
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		47.0		43.5	13.5	29.0		43.5				
Max Q Clear Time (g_c+I1), s		9.6		32.4	8.7	17.6		23.8				
Green Ext Time (p_c), s		5.2		8.1	0.1	6.7		9.7				
Intersection Summary												
HCM 6th Ctrl Delay			26.1									
HCM 6th LOS			C									